C.S. 231

Please handle carefully

THE SPAS OF FRANCE

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THE SPAS OF FRANCE

ALBUM RÉDIGÉ

PAR

LA COMMISSION MÉDICALE
DES STATIONS THERMALES
DE L'O. N. T.

1924

9 987 939

MEDICAL COMMISSION OF THE THERMAL RESORTS OF THE O. N. T.

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152, BOULEVARD HAUSSMANN - PARIS (VIIIe)

PRINCIPALES STATIONS D'ALTITUDE ET DE CURE D'AIR EN FRANCE (1)

RÉGIONS	Altitude	LOCALITÉS
VOSGES ET JURA (Est et P.-L.-M.)	478	Divonne-les-Bains.
	488	Nantua.
	634	Bussang.
	670	Gérardmer *(S. H.)*.
	712	Morez *(S. H.)*.
	850	Pontarlier *(S. H.)*.
	1·158	Les Rousses *(S. H.)*.
	1·345	Col de la Faucille *(S. H.)*.
ALPES DE SAVOIE (P.-L.-M.)	633	Thônes *(S. H.)*.
	712	Samoens.
	777	Sixt.
	812	Saint-Gervais.
	855	Bourg-Saint-Maurice.
	931	Flumet *(S. H.)*.
	1·029	Saint-Jean-de-Sixt.
	1·056	Chamonix *(S. H.)*.
	1·080	Modane *(S. H.)*.
	1·143	Mégève *(S. H.)*.
	1·274	Argentières *(S. H.)*.
	1·422	Les Voirons.
	1·446	Pralognan.
	1·452	Valloire.
	1·524	Le Planet *(S. H.)*.
	1·580	Le Revard *(S. H.)*.
	1·680	Voza.
	1·877	Val d'Isère.
	1·950	Montanvers.
ALPES DU DAUPHINÉ (P.-L.-M.)	725	Bourg-d'Oisans.
	860	Monestier-de-Clermont *(S. H.)*.
	865	Saint-Pierre-de-Chartreuse *(S, H.)*
	1·056	Villard-de-Lans *(S. H.)*.
	1·222	Briançon *(S. H.)*.
	1·270	Vallouise.
	1·462	Aiguilles.
	1·526	La Grave.
	1·572	Abriès.
	2·103	Col du Lautaret.
BASSES-ALPES ALPES-MARITIMES ET PROVENCE (P.-L.-M.)	975	Saint-Martin-Vésubie.
	1·143	Beauvezer.
	1·145	Barcelonnette.
	1·270	Thorenc *(S. H.)*.
	1·450	Villars-Colmars.
	1·465	Peïra-Cava *(S. H.)*.
	1·938	Mont Ventoux.
PYRÉNÉES ORIENTALES (Midi)	650	Vernet-les-Bains.
	748	Ax-les-Thermes.
	775	Aulus-les-Bains.
	925	Usson-les-Bains.
	1·350	Les Escaldes.
	1·590	Montlouis *(S. H.)*.
	1·829	Font-Romeu *(S. H.)*.
PYRÉNÉES CENTRALES (Midi)	559	Bagnères-de-Bigorre *(S. H.)*.
	746	Luz-Saint-Sauveur.
	946	Cauterets *(S. H.)*.
	1·251	Barèges *(S. H.)*.
	1·371	Gavarnie.
	1·829	Luchon-Superbagnères *(S. H.)*.
PYRÉNÉES OCCIDENTALES (Midi)	70	Cambo.
	207	Pau.
	686	Eaux-Chaudes.
	762	Eaux-Bonnes *(S. H.)*.
PLATEAU CENTRAL AUVERGNE CÉVENNES (Orléans et P.-L.-M.)	687	Vic-sur-Cère.
	711	Condat-en-Féniers.
	769	Saint-Nectaire.
	859	La Bourboule.
	986	Chambon-de-Tence.
	1·089	Mont-Dore *(S. H.)*.
	1·089	Saint-Agrève *(S. H.)*.
	1·167	Lioran *(S. H.)*.
	1·219	Mont-Pilate.
	1·453	Mont-Aigoual.
CORSE (P.-L.-M.)	1·016	Vizzavona

(1) La mention S. H. indique les Stations Sportives d'Hiver.

CARTE DES STATIONS THERMALES DE FRANCE

Stations thermales 1ère Catégorie
d° 2e d°
d° 3e d°
d° 4e d°
Les Numéros renvoient aux pages de l'Album à consulter.
Voies ferrées principales
0 20 40 60 80 100 Km.
OCÉAN ATLANTIQUE
MER MÉDITERRANÉE
MAROC
ALGÉRIE
TUNISIE
CORSE
ESPAGNE
ITALIE
BIARRITZ
DAX
SALIES-DE BÉARN
Cambo
St Christau
EAUX-BONNES
Eaux-Chaudes
CAUTERETS
BAGNÈRES-DE BIGORRE
CAPVERN
Barbazan
Argelès-Gazost
St Sauveur
Barèges
St Lary
LUCHON
Salies-du Salat
Aulus
Ussat
AX-LES-THERMES
Thuès-Olette
VERNET
la Preste
AMÉLIE-LES BAINS
Molitg
Perpignan
le Boulou
Alet
Foix
Carcassonne
Toulouse
Balaruc-les Bains
LAMALOU-LES BAINS
Montpellier
Nîmes
Avignon
les Fumades
Alès
Gréoux-les Bains
Dragnignan
AIX-EN-PROVENCE
Marseille
Nice
San Salvador
Zé heures
Alger
Marseille
Tangier
Gibraltar
Rabat
Casablanca
Fes
Oran
Hammam R'Irha
ALGER
Biskra
Hammam Meskoutine
Constantine
Bizerta
Tunis
Sfax
Grezza
Ajaccio
Périgueux
Tulle
MONT DORE
Vic-s. Cère
Miers
Chaudesaigues
Mende
Rodez
Cahors
Agen
Bordeaux
Mont-de Marsan
Barbotan-les-Thermes
Montauban
Auch
Pau
Tarbes
St Etienne
le Puy
Valence
Privas
VALS-LES-BAINS
Grenoble
ALLEVARD
URIAGE
la Motte-les Bains
BRIDES-LES BAINS
Dordogne
Garonne
Lot
Aveyron
Tarn
Adour
Gers
Save
Aude
Hérault
Gard
Ardèche
Rhône
Isère
Durance
Var
Argens
Po
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12°
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4°
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8°
44
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36
P. Ganier. Cartographe

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PRINCIPALES STATIONS BALNÉAIRES FRANÇAISES

COTES DE LA MANCHE

PICARDIE

Boulogne-sur-Mer — Paris-Plage — Berck.
(Réseau du Nord)

NORMANDIE

Le Tréport-Mers — Dieppe — Saint-Valéry en-Caux — Fécamp — Etretat — Trouville — Deauville — Villers-sur-Mer — Houlgate — Cabourg — Lion-sur-Mer — Luc Langrune — Saint-Aubin — Arromanches — Grandcamp Carteret — Granville.
(Réseau de l'Etat)

BRETAGNE

Paramé — Saint-Malo — Dinard — Saint-Enogat — Saint-Lunaire — Saint-Briac — Saint-Cast — Le Val-André — Les plages de Lannion — Saint-Michel-en-Grève — Roscoff Brignogan.
(Réseau de l'Etat)

COTES DE L'ATLANTIQUE

BRETAGNE

Morgat — Douarnenez — Beg-Meil — Concarneau — Pont-Aven — Les plages de Quiberon — Belle-Isle-en-Mer — Le Croisic — Batz — Le Pouliguen — La Baule — Pornichet — Sainte-Marguerite.
(Réseau d'Orléans)

ENTRE LOIRE ET GIRONDE

Pornic — Les Sables-d'Olonne — Fouras — Châtelaillon Pontaillac — Royan — Saint-Georges-de-Didonne.
(Réseau de l'Etat)

COTE D'ARGENT

Arcachon — Capbreton.
(Réseau du Midi)

COTE BASQUE

Biarritz — Guéthary — Saint-Jean-de-Luz — Hendaye.
(Réseau du Midi)

COTES DE LA MÉDITERRANÉE

COTE VERMEILLE

Banyuls-sur-Mer — Canet — Palavas.
(Réseau du Midi)

COTE D'AZUR

Saint-Cyr — Bandol — Les plages de Toulon — Hyères — Les plages des Maures — Saint-Tropez — Sainte-Maxime — Saint-Raphaël — Agay — Le Trayas — Cannes — Juan-les-Pins — Antibes — Nice — Cap Ferrat — Beaulieu — Cap Martin — Menton.
(Réseau P. L. M.)

CORSE

Ajaccio.

PREFACE

OF THE SECOND EDITION

IN the preface to the first edition of "THE SPAS OF FRANCE" published in 1921, I set forth the general plan of the work and the practical advantages which French watering places offer to visitors.

I would now more especially address myself to the foreign and French medical men who may receive this album.

The conception of a hydromineral cure is far from being the same in different countries, and this is due not only to the mentality of the different peoples, but also to the geographical distribution of the essential element of the cure, the natural mineral water.

France is incontestably the most favoured nation from the point of view of richness in mineral water springs. Not that other countries may not possess a greater number of springs, but the latter present fewer varieties of types, suggesting comparatively limited therapeutical applications. The springs which abound in French soil possess a variety of physico-chemical composition which enable them to satisfy the most delicate indications of hydrological therapeutics.

Consequently two very different ways of regarding hydrotherapy result.

In many foreign spas, all the resources of physiotherapy are brought into use and complete clinical installations provided so that the most varied diseases can be treated. The mineral water itself plays but a secondary part and it matters little whether the patient takes his cure at one resort or another.

French hydrologists, on the other hand, convinced of the profound effect of mineral waters upon the organism, have always striven to allocate to the different spas, sufferers from diseases for which scientific experimentation and clinical experiences has shown them to be specially suited.

The hydromineral cure is in fact one of the most efficacious means of combatting chronic conditions occurring upon soil more or less predisposed by hereditary faults or acquired tox-infections.

At first directed by mere empiricism, the employment of the different cures has been regulated and confirmed by the progress of chemistry and physics. The activity of substances reduced to the molecular or colloidal state is now recognised and mineral waters represent extraordinary complex solutions in which a certain number of simple bodies are found in that state, such as sulphur and the rare metals, also radium emanations of which thermal springs are one of the most important sources.

This knowledge, recently acquired and daily increasing, enables the action of the waters to be more scientifically determined.

In my opinion, therefore, it is important that a patient should not be sent to a particular spa without a thorough knowledge of the special indications for the waters which are employed there, whatever physico-therapeutic or other measures may be available, as they play only a a secondary role in the cure.

In spite of the elaborate presentation of this album and the attractive photographs which it contains, Doctors must note take a light view of the value of the text and consider it as a common-place reference work destined for the use of the general public. In addition to the indispensable practical information contained therein, there is much useful matter of a strictly medical nature. The principal indications of the hydromineral cures proper to the special nature of the local water are formulated as briefly as possible, in addition to the secondary indications which invariably follow on the first, and which, in most cases, are derived from the resources due to the technical installations of the resort.

In this album, the various spas are classified in different categories. The principal ones, that is to say those where the therapeutic equipment or the material organisation is perfect, and which are thus deserving of a detailed description, are allotted four pages each. Two pages suffice for the resorts where at present the installation is less complete, while the information on spas which, although possessing very active waters, have not yet been equiped with complete installations, only occupies one page.

In conclusion, I would reiterate the practical advice which I gave in the first edition and which is always pertinent.

In France, it is in July and August that the spas are most frequented, principally owing to the fact that the University vacations take place at this time. In my opinion, there are many advantages in taking a cure, when it is at all possible to do so, in the months of May, June or September. The patients are able to avoid the extreme of summer heat, the doctors have more time at their disposal and the hotels being less crowded are able to give better service and

more favourable terms to the visitors than during the height of the season.

I, therefore, strongly advise foreign invalids to take either a spring or autumnal cure in our spas. an additional advantage from their point of view being that they would then be free to pass the summer months at sea-side or Alpine resorts.

The fact that the French hydromineral resorts are nearly all situated in very good touring centres, does but serve to augment the attraction which is only equalled by their very special therapeutic value.

ALBERT ROBIN
Professeur Honoraire
à la Faculté de Médecine
Membre de l'Académie de Médecine.

AIX-LES-BAINS

(SAVOIE)

THERMAL WATERS
CONTAINING SULPHUR AND CALCIUM

(A Mountain Spa. Winter Sports at Mont Revard, 5.068 feet.)

SUMMER SEASON
APRIL TO NOVEMBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 581
Marseilles	— 475
Bordeaux	— 651
Calais	— 879
Nantes	— 765
Dieppe	— 705
Havre	— 759
Cherbourg	— 885

Motor-car Service
Route des Alpes.

Vestibule des Thermes.

WINTER SEASON

MEANS OF ACCESS
BY TRAIN

Length of journey from :

Paris	10 hours
Marseilles	9 —
Bordeaux	17 —
Calais	15 —
Nantes	18 —
Dieppe	13 —
Havre	14 —
Cherbourg	17 —

P.-L.-M. Railway.

AIX-LES-BAINS AS A SPA

SITUATION. — Aix-les-Bains is 581 kilometres from Paris upon the main line into Italy by the Mont Cenis. Its population is 9.000 and it is visited annually by about 40.000 persons for the sake of its waters and its amusements. Altitude : 846 ft.

CLIMATE. — Aix is situated upon Lake Bourget in a broad valley bounded by wooded heights. It is open to the north and south-west. The town is built in terraces upon the spurs of Mont Revard.

Owing to the geographical position the climate is soft and temperate. It is singularly dry, for fog is unknown. The heat at Aix is never excessive and the mornings, evenings and nights are always cool.

The bathing establishment is open all the year round, but thermal treatment is most efficacious from April to November. The spring and autumn are preferable ; the spa is then less crowded, the service is better, prices are not so high.

PUBLIC HEALTH. — The drinking water is good ; it is derived partly from springs brought from the mountains and partly from the lakes. Sanitation is by Calmette's system of bacterial purification. The streets are tarred and well watered.

THE SPRINGS AND THE BATHING ESTABLISHMENT. — *a*) *Two hot* sulphur springs : *Source de Soufre* and *Source d'Alun*, yielding four million litres in twenty-four hours. Temperature : 112° F.

b) Three cold springs : *Source des Reines*, 46°4 F ; *Source Saint-Simon*, 66°2 F. ; and *Source Massenat*, 59° F. These waters possess strong diuretic properties. They are given by the mouth and are employed as adjuvans to external treatment.

The *Bathing Establishment* has been entirely restored and redecorated and has luxurious annex. The installation is modern and very comfortable. There are rooms for general and local douche-massage, vapour baths ; baths with under-water douche ; swimming baths ; rooms for atomization, hydrotherapy ; intestinal lavage, gargling and inhalation.

The bathing establishment at *Marlioz*, ten minutes from Aix, specializes in treatment of the respiratory passages. It has three springs, is situated in a public park.

The Bathing Establishment.

THE WATERS

CHEMICAL COMPOSITION. — The water of the hot springs is clear and limpid, with a slightly sulphurous odour, alkaline reaction and a specific gravity of 1.024. By Dupasquier's sulpho-hydrometer, it contains 4 sulphur. It has a *radio-activity* of 0,68 milligrammes a minute and is the most radio-active water in France. It carries in suspension whitish flakes and filaments of *barégine*, an oily organic matter, the presence of which renders the waters peculiarly suitable to massage. The chemical composition of the springs is essentially the same, as shown by Willm's analysis in 1878. It is as well to point out that the *Source d'Alun* contains no trace of alum ; it is due solely to a respect for tradition that the spring is allowed to retain its misleading appelation.

PHYSIOLOGICAL ACTIVITY. — The clinical results of treatment are due to the combined operation of several factors, namely the temperature, mineralization and radio-activity of the waters in combination with the effects of massage. The effect upon nutrition is considerable, as all the phenomena of the exchanges are affected. There is in particular an increase in the elimination of solid materials, urates, phosphates and uric acid.

The effect of douche-massage upon the circulation is very marked. It does not tend to increase blood-pressure, and for this reason may be safely employed in cardiac conditions of rheumatic and gouty origin with good compensation. The general diathesis becomes improved, while at the same time the cardiac conditions are ameliorated.

In so far as the nervous system is concerned, the Aix treatment may have either a sedative or stimulant effect, according to the method employed.

Finally, the mechanical effects of douche-massage tend to accelerate the passage of lymph in the lymphatics and thus to promote interstitial absorption.

METHODS OF EMPLOYMENT. — The hot waters of Aix are employed externally only. The treatment *par excellence* consists of a hot douche combined with massage, the method being termed " douche-massage ". Natural vapour baths, general and local, are also given, as well as simple sulphur baths, with or without under-water douches.

Treatment is reinforced by mecano-electrotherapy at the *Zander Institute*, the best establishment of its kind in France.

External treatment is supplemented by water from the cold springs, taken by the mouth.

MEDICAL MEN. — Drs. Bertier, Blanc, Blondel, Caruette (physical agents), Chaffard (eyes, nose, throat, ears), Chesneau, Cléret (surgeon), Coutaz, Dordel, Duvernay, Mme Duvernay, Fiquet, Folliet, Henri Forestier, Jacques Forestier, Abel Françon, François Françon, Gaillard, Grangée, Guilland, Kent Gazet, Lelong, Martin, Marty, Michaud (eyes), Rendall, Sherwood Dunn.

General view.

CLINICAL INDICATIONS

PRINCIPAL INDICATIONS. — These are both medical and surgical.

1° *Medical.* — *a*) The chief medical indication is undoubtedly *chronic rheumatism* in all its protean manifestations whether diathetic or gouty, hereditary or acquired. *Articular rheumatism*, periarticular thickening, rigidity, tendinous synovitis, spondylitis. *Muscular rheumatism* of the shoulder and loins, muscular lumbago. *Neuralgic rheumatism*, intercostal neuralgia, cervico-brachial neuralgia, sciatica, toxic neuritis.

b) *Articular gout*, in the chronic and atonic forms and the *forme fruste*. The cold waters taken by the mouth provide a valuable adjuvans to external treatment. Arthritic diabetes in full-blooded subjects.

c) *Polyarthritis deformans* or osteo-arthritis deformans in the early stages.

d) *Sequelae of acute articular rheumatism* or of *infective pseudo-rheumatism*, angina, blenorrhagia, and the rigidity and partial ankyloses which these provoke.

e) *Neuralgias, sciatica.* — Neuralgia, sciatica or neuritis is enormously benefitted by the Aix douche massage, as also intercostal and femoro-cutaneous neuralgias and the neuralgia of Morton.

f) *Peripheral neuritis* of various origin including alcoholism, with amyotrophy ; trophic cutaneous affections, pitting, fibro-tendinous reactions.

g) *Syphilis* is treated at Aix by the methods employed at all sulphur spas. The vigorous medical treatment is reinforced by thermal measures.

h) *Sequelae of hemiplegia* without contracture or of polyomyelitis. Sequelae of phlebitis.

i) *Dermatoses* of arthritic origin.

2° *Surgical indications.* — All articular affections resulting from traumatism. Aix is, in a very special sense, the spa for joints.

a) Simple *chronic arthritis*, both dry and with hydrarthrosis.

b) *Articular rigidity* in all stages up to complete ankylosis (osteo-arthritis).

c) *Tendinous synovitis*, simple or with muscular atrophy.

d) *Traumatic neuritis* due to section or compression of a nerve.

e) *Sequelae of war wounds.*

CONTRA-INDICATIONS. — Acute rheumatism and gout ; all forms of tuberculosis (e. g. there is a form of rheumatism which, in its early stages, is sometimes mistaken for tuberculosis, this is not contra-indicated). Cardiac conditions with broken compensation ; kidney disease with renal insufficiency ; diseases of the liver ; suppurative conditions of the urinary passages ; the menopause when associated with menorrhagia.

Hautecombe Abbey.

LIFE AT AIX-LES-BAINS

AMUSEMENTS. — Aix-les-Bains offers facilities for amusements and interests of the most varied description. There are numerous Roman remains : the Arch of Campanus, the Roman baths, the temple of Diana. The chief promenade is a park planted in the centre of the town ; on the shores of Lake Bourget, immortalized by Lamartine, is another and newer park.

Aix boasts two luxurious casinos. The Grand Cercle, founded in 1824, is open from 1st April to 1st November. The building itself is a richly ornamented palace ; its theatre, recently rebuilt, is justly celebrated for its luxury and comfort ; the Villa des Fleurs is a beautiful building situated in a fine park with an open-air theatre.

The concerts and theatrical productions are celebrated the world over.

There are tennis and golf clubs ; there is pigeon shooting and horse-racing ; regattas are held on Lake Bourget and there is boating, sailing, fishing and a motor-boat service.

EXCURSIONS. — Aix-les-Bains is a centre for important climbs in the French Alps. In the immediate vicinity, within a radius of fifteen kilometres, there are numerous beautiful walks.

Principal excursions. — The Grande Chartreuse, La Chambotte, the drive round the lake, Hautecombe, the Col du Chat, the Val du Fier, etc.

Ascents. — Mont Revard, 5.068 ft. ; the Dent du Nivolet ; the Dent du Chat.

Carriages, cars, etc., are obtainable. Aix is a station on the P.-L.-M. Motor-service, Route des Alpes.

WINTER SPORTS AT MONT REVARD. — From December to 15th March, winter sports are held at Mont Revard, 5.068 ft., seventy minutes from Aix by the rack and pinion railway.

A magnificent view of Mont Blanc and the Alps is obtained from the Plateau of Revard and in winter this plateau offers a splendid field for ski-ing. There are bobsleigh and lugeing runs. There is an hotel and restaurant on the plateau itself.

ACCOMMODATION. — There are numerous first-class hotels which offer the acme of luxury, and hotels and pensions to suit every taste and purse abound. The majority is open during the winter season. There are furnished apartments and villas of every description.

GENERAL INFORMATION. — For information concerning the treatment, the tariffs of the bathing establishments, the export of the waters, excursions, motor-car tours, the time-table of the motor-boat service, and all details concerned with the comfort or convenience of visitors, application should be made to Le Comité d'Initiative, Place de l'Hôtel-de-Ville, Aix-les-Bains (Savoie).

BIARRITZ

(BASSES-PYRÉNÉES)

NATURAL SALT SPRINGS CONTAINING
A HIGH PERCENTAGE OF SODIUM CHLORIDE
WITH SOME IODINE AND BROMIDE SALTS

SEASON
ALL THE YEAR ROUND

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 800
Calais	— 985
Dieppe	— 830
Havre	— 666
Nantes	— 516
Cherbourg	— 806

Daily summer service of motor coaches.

Terminus of the main Pyrenees road from the Mediterranean to the Atlantic.

The Basta Rock.

SEASON
ALL THE YEAR ROUND

MEANS OF ACCESS
BY RAIL

Paris-Orléans and Midi Railways.

Length of journey from :

Paris	10 h. 30 to 12 hours.
Calais	15 h. 30
Dieppe	15 hours.
Havre	16 —
Nantes	11 —
Cherbourg	19 —
Bordeaux	4 —

Trains de luxe.
Sleeping-cars.

BIARRITZ AS A SPA

SITUATION. — Biarritz is situated on the Basque coast at the head of the gulf of Gascogne. It is built on hills descending to the sea and ending in more or less extensive beaches. It is 30 kilometres from the Spanish border.

The town has 17.000 inhabitants and over 40.000 visitors yearly.

CLIMATE. — Typical coast climate. Biarritz is under the influence of the oceanic currents, especially that of the Gulf Stream. The uniformity of the climate is due to this fact and also to the constant and particularly high hygrometric condition of the atmosphere : 70 to 80 . %

The south wind prevails in winter, sea-winds in summer, and autumn.

Moderate temperature at all seasons : 60° to 73° F. in summer, 43° to 50° in winter.

For those reasons Biarritz, besides being a spa, is a much frequented winter resort.

DURATION OF SEASON. — The season lasts throughout the year.

Large numbers of visitors take the cure during the summer.

All those who love this charming place and those wishing to take the cure are strongly advised to visit Biarritz in May and June or in October, during which months the weather is exquisite. Besides this, the cost of living is very reasonable and the hotels less crowded during these months.

URBAN SANITATION. — The drinking water is drawn from subterranean sheets of water of remarkable purity. Drainage system, incinerators. Streets tarred and watered. Health office. Epidemics are unknown in Biarritz. Electric lighting.

The " Thermes Salins ".

THE WATERS

CHEMICAL CONSTITUTION. — The temperature of the water 57°2 F : it has a high percentage of sodium chloride.

It contains 307 grm. 79 of mineral salts to the litre, composed of chloride of sodium, 295 grammes ; chloride of potassium, 2 grammes ; traces of chloride of lithium, iodide of sodium, sodium bromide, sulphate of lime, of magnesium and of soda.

This water is 11 times more salt than sea water.

The bath contains 75 kilos of mineral salts in solution.

PHYSIOLOGICAL ACTION. — The Biarritz waters are tonic and discutient.

They increase the metabolism by facilitating absorption, improving the assimilation and causing rapid expulsion of the organic waste products. They have a selective action on the female genital organs.

Their action is effectively supported by the sea air and this quite *unique combination* of the two elements renders the saline cure complete.

THE SPRINGS AND BATHING ESTABLISHMENT. — Yield one million litres per diem. The saline waters of Biarritz come from the Briscous springs situated a few miles from Bayonne.

The water is carried in pipes directly to Biarritz without undergoing any modification as has been proved by repeated analysis.

The *Thermes Salins* (salt baths) is a modern building 600 yards from the sea ; it comprises about a hundred bath-rooms, douche-rooms, rooms for local douche, etc. It has besides a complete installation for hydrotherapy with fresh water, an installation for air-baths as well as arrangement for massage and under-water massage. The Establishment remains open throughout the year.

The Chinaougue Rock.

CLINICAL INDICATIONS

THERAPEUTIC USES. — The treatment is exclusively external : baths more or less moderated by fresh water and graduated in this respect up to 24° by the Beaumé aerometer (the pure salt water as a bath). General local and filiform douches with the unadulterated salt water. Local compresses generally applied at the patients residence. Irrigation carried out either in special apartments or in the bath, has a decongestive and resolvent action on the female genital apparatus.

The compresses and irrigations are prepared with the mother-water, composed of the residue after heating the natural salt water, the major part of the salt being extracted. It contains per litre 260 grammes of chloride of magnesium ; 10 grammes of bromide and 0 grm. 13 of alkaline iodides. This water is particularly sedative. It may be added to the salt baths in varying quantities making them tolerable to irritable subjects.

PRINCIPAL THERAPEUTIC APPLICATIONS — *Women's diseases :* Metritis, salpingitis (once acute period is past), fibromata, sterility.

Children's diseases : All conditions benefitting by sea air are amenable to the cure : rickets, scrofula, early tuberculosis, tracheo-bronchial adenopathy.

Local tuberculosis : Bone, articular and ganglionic lesions.

Anaemia, neurasthenia, convalescence.

CONTRA-INDICATIONS. — Tuberculosis of the respiratory passages, arterio-scleriosis.

MEDICAL MEN. — Drs Augey, Bartissol, Bastide, Benoit, Berne, Claisse, Clavel, Constantin, Ducoudray, Dulout, Gallard, Genthile, Gethen, Lacour, Laignier, Laparra, de Lataillade, Lavergne, de Lostalot, Mercier des Rochettes, Tessier, Uteau.

GENERAL INFORMATION. — For all information regarding the cure, the fees, the exportation of mineral waters, apply to the Etablissement Thermal.

For other information, apply to the Syndicat d'Initiative de Biarritz.

The Beach and the Light-house.

LIFE AT BIARRITZ

AMUSEMENTS AND RECREATIONS. — Biarritz is one of the most famous watering places in the world.

The month of September is perhaps the most fashionable of the season, but the spring and autumn are particularly charming at Biarritz.

Sea bathing can be indulged in with pleasure for many months, thanks ot the mild climate. There are three beaches with excellent bathing establishments.

Two modern casinos : theatrical performances and excellent concerts. Tennis and golf clubs ; aviation ground, races, fox-hunting.

Large municipal park, called the " Bois de Boulogne " containing a small lake with boats.

Biarritz is in the heart of the Basque country, the people of which still practise their traditional pastimes, including the national game of " la pelote basque ". There is a " fronton " at Biarritz which is near Guethary, Cambo, Saint-Jean-de-Luz and where famous matches are held every year both with the " chistera " and with bare hands.

Biarritz is an excellent touring centre for the Basque country and the Basses-Pyrénées. The following excursions are particularly interesting : Bayonne (regular tramway service) Cambo and the valley of the Nive, le Pas de Rolland, Saint-Jean-de-Pied-de-Port, Saint-Jean-de-Luz, Guethary, La Rhune (altitude : 2.925 ft., splendid view).

As Biarritz is situated only 20 kilometres from the mouth of the Bidassoa and the Spanish frontier, it is easy to attend *bull-fights* in the arena at Fontarabie and at Saint-Sebastian (also less frequently in France at the Bayonne arena). Cars can be hired, motor-coach service.

ACCOMMODATION. — Numerous hotels de luxe, hotels and pensions to suit all tastes. The all remain open for the winter season.

Furnished apartments and villas at all prices.

Special house agent, all information free.

LA BOURBOULE

(PUY-DE-DOME)

WARM SPRINGS CONTAINING
ARSENIC, CHLORIDES AND BICARBONATES

(Hill station : 2.760 feet to 3.900 feet on the Charlanne Plateau.)

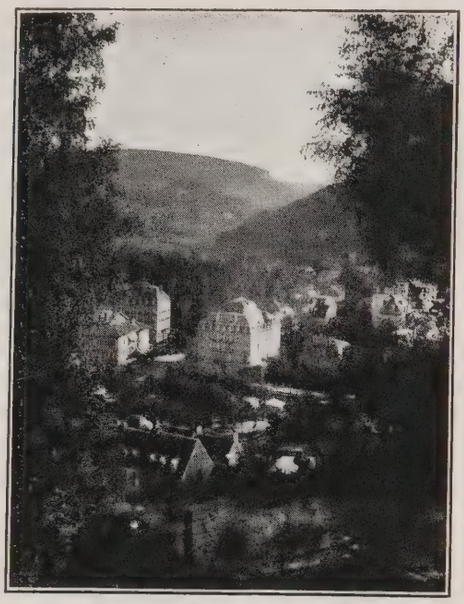
SEASON
15th MAY
TO 1st OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 380
Calais	— 648
Dieppe	— 584
Havre	— 577
Nantes	— 454
Cherbourg	— 669
Bordeaux	— 387
Marseilles	— 445

Motor coach service between :
1. All the central spas (circuit of Auvergne).
2. Vichy.



View of the Valley of Vendeix.

SEASON
15th MAY
TO 1st OCTOBER

MEANS OF ACCESS
BY RAIL

Paris-Orléans Railway.

Length of journey from :

Paris	9 hours.
Calais	12 h. 30.
Dieppe	12 hours.
Havre	12 h. 30.
Nantes	20 hours.
Cherbourg	16 —
Bordeaux	11 —
Marseilles	18 —

Direct trains from Paris and from Bordeaux. Sleeping-cars.

LA BOURBOULE AS A SPA

SITUATION. — Modern spa, La Bourboule is built on both banks of the Dordogne in the heart of Auvergne and of France. 2.000 inhabitants, 20.000 visitors.

CLIMATE. — The vallev of La Bourboule, lying east and west, is very open to the south and is protected from the north by the great mass of the Banne d'Ordanche (4.875 feet).

The air is pure and tonic, in the immediate vicinity of high wooded mountains. Aerotherapy on the Charlanne plateau at an altitude of 3.900 feet, 15 minutes from La Bourboule by funicular.

Mean summer temperature 58°3 F.

The treatment is equally efficacious at all parts of the season. June and September are to be advocated when possible as the resort is less crowded, individual attention greater and prices more moderate.

Warm clothes are always necessary, even in summer.

URBAN SANITATION. — Irreproachable. — Drinking water of the greatest purity. — Drainage system. — Complete arrangements for cleansing and watering the streets. — Disinfection service. — Public health offices. — Hospital for hydrotherapy. — Electric lighting.

THE SPRINGS AND BATHING ESTABLISHMENT. — Daily yield : one million litres.

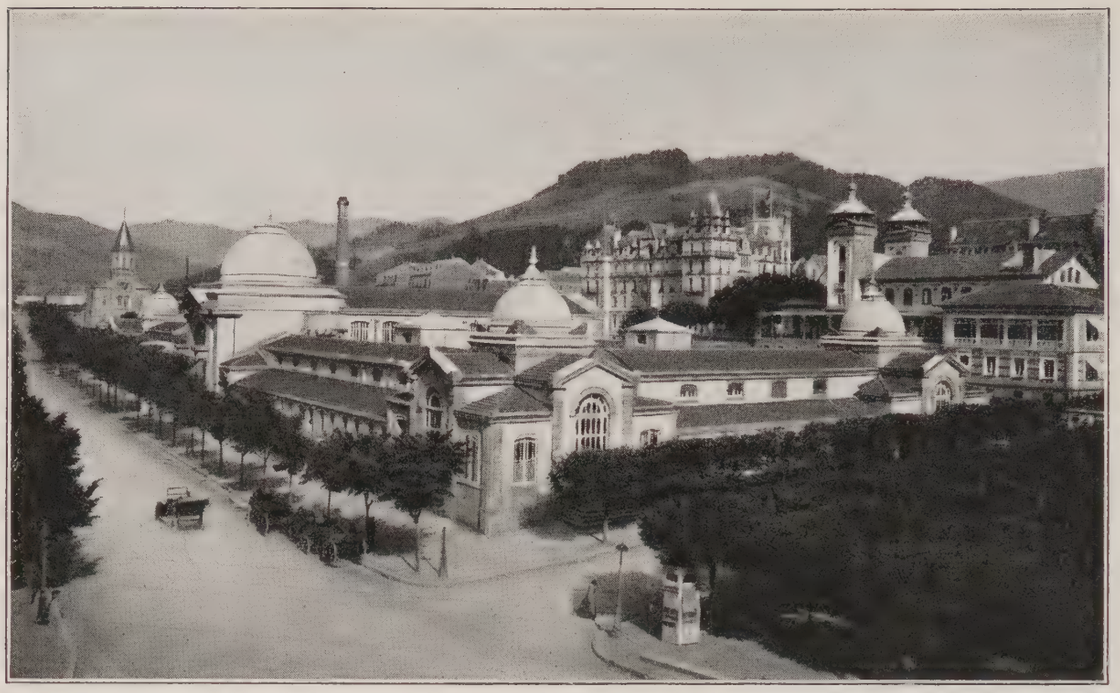
Two warm springs : Choussy and Perrière (140° F. at the springhead, 134°6 F. at the bathing establishment) and Croizat (116°6 F. at the springhead, 104° F. at the bathing establishment)

Two cold springs : Fenestre and Clemence.

The chemical composition of the four springs, all containing arsenic, varies very little.

There are three bathing establishments : *Les Thermes*, first-class : complete modern installations ; *Choussy*, second-class : more modest ; *Mabru*, third-class : reserved for patients with small means.

The prices vary according to the establishment and the period of the season.



The Thermal Establishment.

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — Warm waters varying from 116°6 F. to 134°6 F. Slightly salt taste.

The Bourboule waters contain a larger percentage of arsenic than any of the warm waters known : 28 milligrammes of arsenate of soda to the litre ; 3 grammes of chloride of sodium, 3 grammes of bicarbonate of soda ; a fairly large proportion of silicum ; the total mineralisation varies from 6 to 10 grammes.

The composition of the cold waters of the Fenestre and Clemence springs is similar to that of the warm springs, but the mineralisation is less and they are chalybeate and strongly aerated.

The Bourboule waters are the most radio-active in France : 1 milligr.-minute 78 after four days as regards the water and 11 milligr.-minute 02 as regards the gases.

PHYSIOLOGICAL ACTION. — The warm mineral waters of La Bourboule owe their principal effects to the arsenic. Like it, the arsenical water of La Bourboule modifies and stimulates nutrition. It gives the necessary filip to the sluggish metabolism in lethargic and exhausted patients.

Like arsenic, it purifies the blood, aids the internal economy and renews the saline content of the plasma. It is more effectual than cacodylate or arrhenium, arsenates or arsenites, better in fact than any arsenical preparation in the pharmacopaeia whether organic or inorganic.

The patients quickly regain their appetite, increase in weight and in vigour.

The waters of La Bourboule, aided by the physiological action of the altitude, are of great value in restoring the general health and particularly in the reformation of red blood corpuscles. Anaemia, chlorosis, anaemia of doubtful causation and early tuberculosis improve and are cured. The Bourboule waters are a veritable specific in cases of malarial anaemia.

In short, the arsenical waters of La Bourboule regulate metabolism. They exercise a curbing action on all the cells of the body, which are the seat of a temporary excess of function, such action being due to the arsenic. It acts by maintaining the chemical changes at the correct-constant level.

THERAPEUTIC USES. — The assimilation of the arsenical water is the essential basis of the cure and the main form of treatment is by imbibition.

The rooms of inhalation through an atomiser, another mean of assimilating the water, are also much in vogue.

Baths supplemented by douches, atomisation, inhalation, radio-active gas douches, retro-nasal douches, vaginal irrigation, needle douches, under water massage, etc., make it possible, by graduating the intensity, frequency and duration of these applications, to obtain favourable results in all conditions amenable to the arsenical treatment.

The Church.

CLINICAL INDICATIONS

PRINCIPAL THERAPEUTIC INDICATIONS. — The indications for advising the waters of Bourboule are those for the administration of arsenic. One may say, then, that treatment at La Bourboule is indicated in all conditions where it is desired to prescribe arsenic with a view to renewing the salts of the blood, or to establish metabolism at a proper level ; it is of especial value in cases of dermatosis, lymphatism, diseases of the respiratory system and the blood.

General conditions. — This spa has long been known for the efficacy of its arsenical and chloride waters in the treatment of all *lymphatic and ganglionic* conditions. Here arsenic plays the role which our ancestors termed stimulating. It regulates cellular metabolism, that is to say, it modifies it by stimulation and activation.

The waters of La Bourboule are of particular value in those lymphatic and ganglionic cases whose nervous condition does not admit of the bracing climate of the coast.

Finally, the arsenical waters of La Bourboule, being alkaline in addition have a favourable action in regulating the metabolism of diabetics ; particularly in those cases which are becoming emaciated owing to over rapid oxidation and in those troubled by cutaneous complications which in themselves are often very intractible to ordinary forms of treatment.

Localised skin lesions. — Treatment at this spa acts on the cases of skin disease in two ways, there is a local action brought about by the use of baths of short or long duration (they may last several hours) various forms of applications (moist packs, fomentations and lavage), spray douches, fine jets under pressure (needle douches, etc.), they also act in a general way when they are taken internally in cases of eczema, acne, furonculosis, prurigo, lichen, psoriasis.

Affections of the naso-pharyngeal mucous membrane. — Of respiratory diseases, the La Bourboule treatment is particularly indicated in cases of lymphatism limited to the bronchi and the mediastinal ganglionic system, torpid bronchitis, passive congestion, tracheo-bronchial adenopathy, ganglionic cough and asthma. The finely divided water reaches even to the congested lymphatic nodes, removes their congestion and thus alleviates their irritating and compressing action.

CONTRA-INDICATIONS. — Tuberculosis, open or with haemoptysis, non compensated heart lesion, serious disease of the liver, particularly atrophic cirrhosis, albuminuria is not a contra-indication.

MEDICAL MEN. — Drs. Aboulker, Anglada, Boudry, Burin des Roziers, Cany, Chadefaux (Octave), Chadefaux (Alexandre), Christin (E.-F.), Duliège (J.-B.), Mme Eyraud-Dechaux, Ferreyrolles (Paul), Gachon, Godonnèche, Guillot, Heulz, Jumon, Mlle Kohn-Enriquez, Maurel, Mlle Merle, Morin-Gérard, Olivier, Pierret (Robert), Rongier, Sersiron, Veillet, Vialle.

LA BOURBOULE

General view.

LIFE AT LA BOURBOULE

AMUSEMENTS. — Casino with theatre, ball room, gaming rooms. concerts, young people's club, park with open air theatre, horse show, grounds for games and sports, fête committee.

Fenestre park (20 acres). — Games parks. — Seven tennis courts. — Tennis club.

A quarter of an hour from La Bourboule by funicular lies the wooded plateau of Charlanne at an altitude of 3.900 feet. Restaurant, dairy farms, golf.

Numerous walks and drives by carriage or motor car, also donkey and donkey carriages. Carriages, cars and motor-coaches for hire.

The principal excursions are : La Banne d'Ordanche (4.820 feet), two hours ; le Pic de Sancy (6.070 feet), four hours. The neighbouring spa of the Mont-Dore (6 kilometres), the valley of Chaudefour (12 kilometres).

The lakes of Guery (15 kilometres), Chambon (25 kilometres) and Pavin (40 kilometres).

The feudal castles of Murols (30 kilometres), Cordès (22 kilometres), Vals (32 kilometres), Saint-Saturnin (40 kilometres).

The well-known Roman churches of Orcival (20 kilometres), Saint-Nectaire (35 kilometres), Saint-Saturnin (40 kilometres), Issoire (60 kilometres), Notre-Dame-du-Port at Clermont-Ferrand (50 kilometres).

ACCOMMODATION. — 10 first-class hotels ; hot and cold water ; electric light, central heating, bath-rooms. 1.500 bed-rooms, 200 with private bath-rooms.

12 second-class hotels, comfortable. 1.600 bed-rooms.

15 third-class hotels, less pretentious. 1.800 bed-rooms.

120 furnished houses, villas and reliable apartments at all prices.

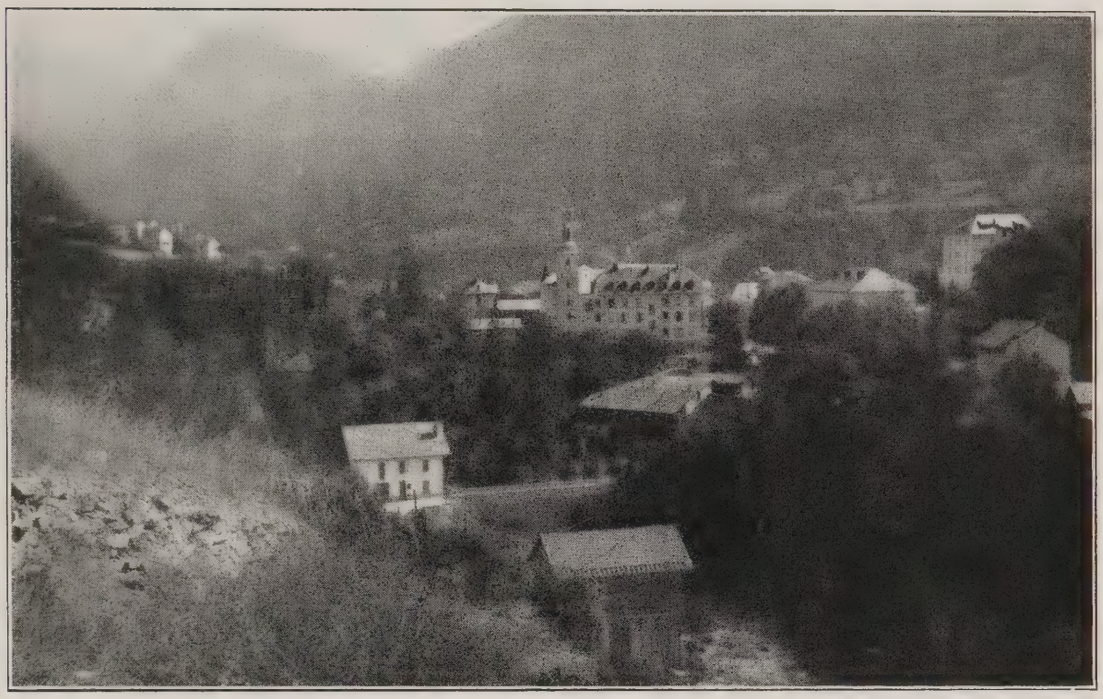
The Syndicat des Logeurs gives free information with regard to furnished houses, etc.

Visitors are warned not to be influenced by biassed and untrustworthy advice frequently furnished by agents, who prove themselves a nuisance on the trains running between Clermont-Ferrand, Eygurande and La Bourboule.

GENERAL INFORMATION. — For information regarding the cure, the tariffs, the exportation of the mineral waters, apply to the Compagnie des Eaux de La Bourboule, at La Bourboule, or at Paris, 10 *bis*, rue de Châteaudun. Teleph. Central 99-45.

For all other information, apply to the Syndicat d'Initiative de La Bourboule, Mairie.

BRIDES-LES-BAINS
AND
SALINS-MOUTIERS
(SAVOIE)



General view of Brides.

BRIDES-LES-BAINS AND SALINS-MOUTIERS

Season 15th May to 30th September.

SITUATION. — The twin resorts of Brides-les-Bains and Salins-Moutiers in Savoie are hardly separable, both on account of their geographical position and from the therapeutic point of view.

They have a common station at Moutiers (P.-L.-M.) and are only 4 kilometres apart, this short distance makes it possible in many cases to combine advantageously the cures of both spas.

CLIMATE. — The climate of Brides-les-Bains and Salins is remarkably uniform, thanks to their moderate altitude, 1.950 ft., their situation in a sheltered valley and the proximity of mountain streams which temper the hot summer day. Average summer temperature : 62°6 F

URBAN SANITATION. — Irreproachable sanitation. Spring drinking water of perfect purity, thorough municipal sweeping and watering. Health officer. Electric street lighting.

REORGANISATION OF THE SPAS. — In 1918, when it became expedient to restore the French Spas so that they could compete with their foreign rivals, Brides and Salins were completely transformed.

They now possess all modern improvements of comfort and hygiene and additions are made yearly both from the medical point of view and for the comfort and pleasure of the patients.

ACCOMMODATION. — Hotels of all kinds. Several hotels are under construction. Pensions, apartments and villas at all prices.

The Park and Buvette.

BRIDES-LES-BAINS AS A SPA

THE SPRINGS AND BATHING ESTABLISHMENT. — Hybord spring, yield 400.000 litres per day.

The newly renovated bathing establishment comprises numerous bath-rooms, douche rooms, hip baths with running water and varying in temperature, foot-baths, with strong pressure, internal lavage, massage rooms, under-water massage, light baths.

An annexe with special exercise grounds, is reserved for physical culture, remedial gymnastics, mechanotherapy, passive ergotherapy, etc.

CHEMICAL COMPOSITION OF THE WATERS. — Sulphate of soda (1 grm. 6) ; sulphate of magnesia (0 grm. 50) ; chloride of sodium (1 grm. 9) ; lithium, bicarbonate of iron.

PHYSIOLOGICAL ACTION AND TREATMENT. — The chief characteristic of the Brides-les-Bains waters is their decongestive action.

In small quantities, it improves the appetite and has diuretic effects ; in large quantities it is *extremely laxative* and resolves congestive conditions.

The cure at Brides is mainly a cure by ingestion, combined with baths, douches, massage and physical culture.

PRINCIPAL THERAPEUTIC INDICATIONS. — *Obesity* in all its forms.

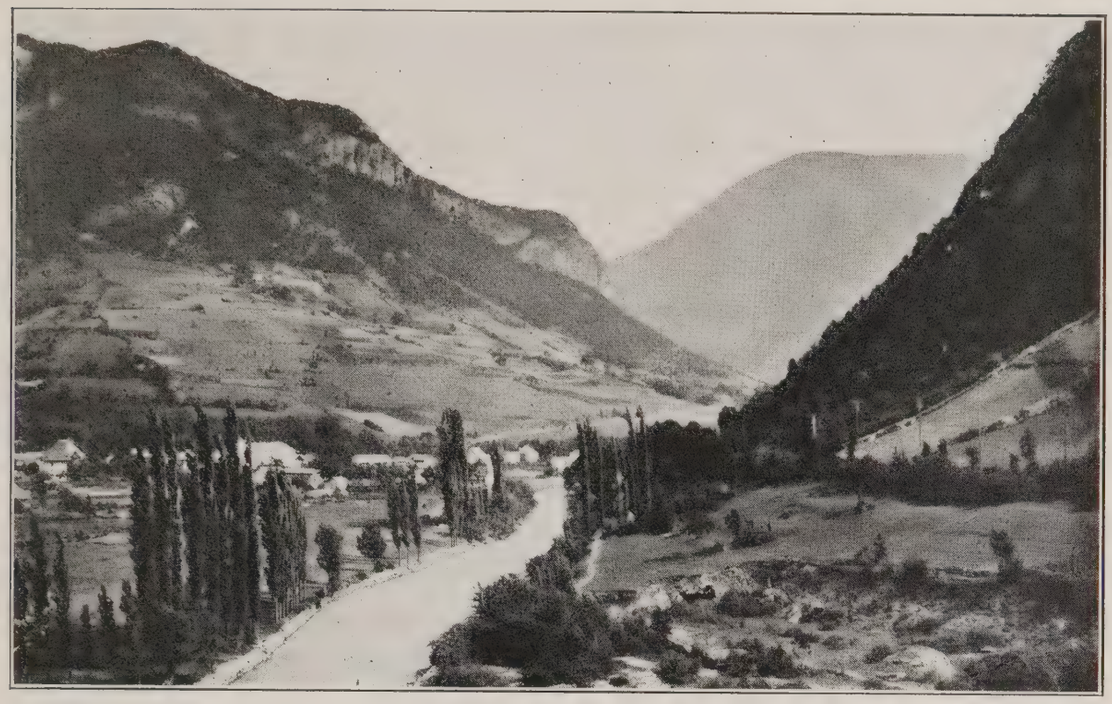
Diseases of the liver : lithiasis, congestion of the liver, hepatic insufficiency, malaria.

Gastro-intestinal disorders : Habitual constipation, muco-membranous enteritis, chronic appendicitis, gastric atony, haemorrhoids.

Gout, gravel, diabetes.

CONTRA-INDICATIONS. — Aortitis, tuberculosis, feverish conditions.

MEDICAL MEN. — Drs d'Andou, d'Arbois de Jubainville, Furet, Laissus, Leray, Mathieu, Thibault.



The Valley of Isère at Moutiers

SALINS-MOUTIERS AS A SPA

THE SPRINGS AND BATHING ESTABLISHMENT. — Immense yield of 5 millions litres per day, from two warm springs, at 96°8 and 91°4 F.

The bathing establishment comprises numerous bath-rooms and swimming baths, *installed to give baths in running water* so that the patients come into direct contact with the living water as it comes from the spring.

Special installation for internal douches at a constant temperature.

Apartments for douches, atomisation, and naso-pharyngeal irrigation, application of radio-active mud.

CHEMICAL COMPOSITION OF THE WATERS. — High percentage of sodium chloride (12 grm. 5 per litre), calcium and magnesium sulphide, iron, carbon-dioxide ; radio-active.

PHYSIOLOGICAL ACTION AND TREATMENT. — The Salins waters have principally a stimulating action on the circulation and general nutrition. They are mostly employed as baths and for irrigation.

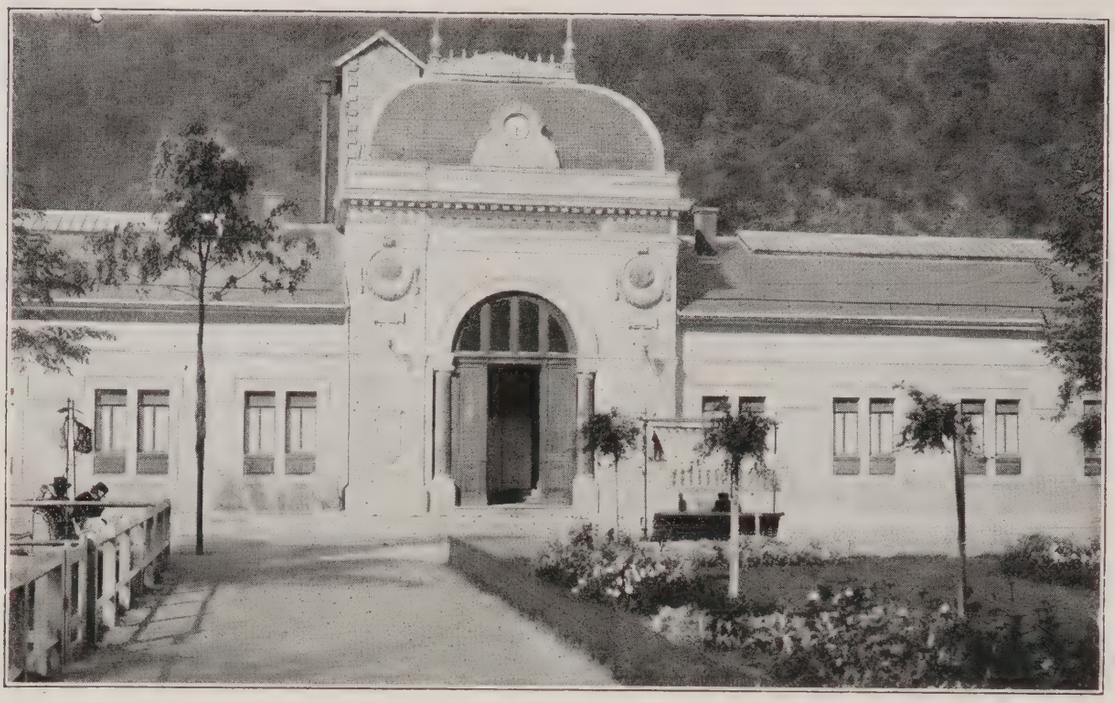
PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *Convalescents.* The weak and exhausted.

2. *Uterine disorders*, metritis, fibromata, salpingitis, dysmenorrhoea, leucorrhoea, sterility.

3. *Weak children*, lymphatism, anæmia, glandular diseases.

CONTRA-INDICATIONS. — All acute and febrile conditions, arteriosclerosis, pulmonary tuberculosis, cerebral or spinal irritation.

MEDICAL MEN. — All the doctors of Brides, also Drs. Gonthier and Reyne, of Moutiers.



The Bathing Establishment of Salins.

LIFE AT BRIDES-LES-BAINS AND SALINS-MOUTIERS

AMUSEMENTS. — *a) Excursions :* Brides and Salins owing to their situation in one of the most picturesque parts of the Savoie, are centres for extensive and varied walks and excursions, varying from walks in the neighbouring woods of Cythère and Villarlurin, the Gorge aux Pigeons, etc., to ascents to moderate and high altitudes (Pralognan, La Vanoise, Mont-Jovet, Champagny, Le Val d'Isère, le Petit Saint-Bernard, etc.).

Regular services of motor coaches run between Brides and Chamonix, Annecy, Aix-les-Bains and Evian.

b) Casino. Brides has an excellent casino in the park of the bathing establishment itself, which offers all kinds of amusements : theatre, concerts, ball-room, gaming-room, etc.

c) Sports. Numerous tennis courts in the Casino park (annual championships).

Golf course on excellent ground in the very centre of Brides and only a few minutes from the bathing establishment (weekly matches).

GENERAL INFORMATION. — Post-office, telegraph, telephone. Three mails and three deliveries daily.

Branch of the " Banque de Savoie ".

Pharmacy with laboratory for biological analysis.

Numerous garages. Carriages for hire.

MEANS OF ACCESS. — *a) By road.* The main road of Albertville, Moutiers, Pralognan (distances : from Chambéry to Moutiers, 76 kilometres ; Albertville to Moutiers, 30 kilometres ; Moutiers to Brides, 6 kilometres).

b) By train. P.-L.-M. station at Moutiers, on the line from Chambéry to Bourg-Saint-Maurice. Express trains and through carriages from Paris (13 hours) ; from Chambéry (4 hours) ; Lyons (9 hours). First and second-class sleepers.

Electric tramways and motor-car service from Moutiers to Salins and to Brides-les-Bains.

CAUTERETS

(HAUTES-PYRÉNÉES)

THERMAL WATERS
CONTAINING SULPHUR, SODIUM & SILICATES

(Climatic altitude station : 3125 feet.)

SUMMER SEASON
FROM 1st MAY
TO 1st OCTOBER

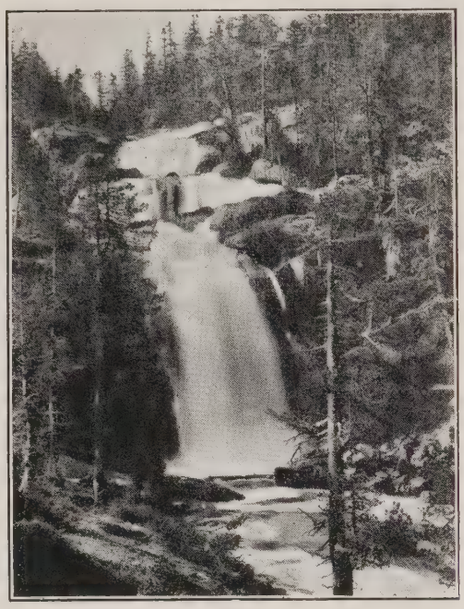
MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 706
Havre	— 1014
Bordeaux	— 318
Calais	— 1065
Nantes	— 655
Marseilles	— 586
Cherbourg	— 913
Dieppe	— 946

The motor-omnibus service *Grande Route des Pyrénées* runs daily during summer between

Cauterets and Gavarnie
Cauterets and Lourdes
Cauterets and Biarritz



Pont d'Espagne high waterfall.

WINTER SPORTS
15th DECEMBER
TO END FEBRUARY

MEANS OF ACCESS
BY TRAIN

Paris-Orléans and Midi Railways.

Length of journey from :

Paris	12 hours.
Havre	15 —
Bordeaux	5 —
Calais	16 —
Nantes	10 —
Marseilles	10 —
Cherbourg	19 —
Dieppe	15 —

Through carriages and sleeping-cars
Paris-Pyrénées express,
Paris-Bordeaux-Cauterets,
Nice-Toulouse-Cauterets.

CAUTERETS AS A SPA

SITUATION. — Cauterets is a high-lying spa situated in the most magnificent part of the Hautes-Pyrénées. A railway terminus of the Paris-Pyrenees express. Population of 1.500. In summer it is visited by about 25.000 persons for the sake of its waters and the winter sports attract about 5.000. Mountain Touring Centre.

CLIMATE. — Surrounded by wooded heights (9.842 ft.) the valley of Cauterets is sheltered from rough winds. The air is impregnated with ozone and is of a luminous and sparking quality. Though still, it is kept fresh by the activity of many cascades and torrents. The mean atmospheric pressure is 687 millimetres. These factors combine to produce a climate which is both sedative and tonic, which tends to enhance respiration, stimulate circulation and appetite and, by promoting sleep, to stabilize the nervous equilibrium.

Average summer temperature : 50° F. at 6 a. m., 62° F. at 2 p. m., 50° F. at 8 p. m. In winter : winter-sports (January-February) ; air treatment ; climato-therapy.

PUBLIC HEALTH. — The drinking water is sterile and is derived from granite formation. There is a system of main drainage and disinfecting rooms.

THE SPRINGS AND BATHING ESTABLISHMENT. — There are twelve springs yielding two million litres daily. There are nine bathing establishments, situated at the emergence of the springs in order to assure clinical constancy. The hydrotherapeutic installation is very complete and entirely up-to-date (enritely rebuilt in 1922-1923).

A. — North Group (schists) : 1. The Thermes de César, 118°4 F. and the Thermes des Espagnols, 118°76 F., are sulphurated waters ; 2. The Neothermes de César and Le Rocher, 95°54 F., contain chloro-sulpho-silicates ; Rieumiset, 60°8 F., contains bicarbonates and sulphates ; 3. The Thermes de Pauze-Vieux, 91°4 F., are employed in affections of the skin.

B. — South Group (granite) : 4. La Raillière, 99°52 F., is employed in diseases of the respiratory organs ; 5. The Thermes du Petit-Saint-Sauveur, 100°4 F., contain hyposulphites and are sedative in their action ; 6. Le Pré, 118°4 F., is beneficial in rheumatism ; 7. Le Bois, 109°4 F., is indicated in gout ; 8. La Buvette de Mauhourat, 122° F., is an alkaline sulpho-silicated water largely employed in auto-intoxications ; 9. The bathing establishment of the Thermes des Œufs, in the centre of the town, has a very complete hydrotherapeutic installation with a swimming bath of running sulphur water.

Pierrefitte Road.

THE WATERS

CHEMICAL CONSTITUTION. — *Sulphur* is present under the following conditions : 1° As unoxygenated but readily assimilable colloidal sulphur and as soluble sodium monosulphide (0 grm. 023 to 0 grm. 013). These waters are stimulating and promote metabolism ; 2° Waters from the fissure close to the spring contain sulphur which is partially oxygenated, alkaline sulphites and hyposulphites. These waters are sedative in their action ; 3° In some springs the sulphur is completely oxygenated and is present in the form of sulphates.

Other chemical constituents are iodine, boron, fluorine, the chlorides, the carbonates and especially the alkaline silicates (0 grm. 065 to 0 grm. 008). The sulphurated nitrogenized organic matter is present, due to the sulpho-bacteria of oxydation.

Metals are present in the colloid state (metallic ferments) ; they are : silver, bismuth, copper, bronze, gallium, germanium, glucinium, mercury, lead, nickel, molybdenum, and tungsten *(spectrographic analysis by the Institut d'Hydrologie)*.

Gases are : Nitrogen 21 to 30 cmc. per litre ; emanations of radium, helium, neon and argon-0,11 to 1,48 to 100 litres of gas.

PHYSIOLOGICAL ACTIVITY. — *Sulphur* is a fundamental constituent ; it is as essential as nitrogen and carbon to the vitality of the proteid molecule. The multiplicity of its chemical forms in the waters of Cauterets and their consequent diversity of reaction, explains the varied activity in promoting nutrition, whether organic or cellular, which these waters possess.

1° In those conditions of the skin, joints or respiratory organs which are characterised by a marked diminution of sulphur, the sulphur is restored to the economy in a slightly oxygenated and readily soluble form (soluble alkaline sulphides). For this reason it is easily assimilable and its clinical activity is pronounced.

2° In anaemia, lymphatic conditions and neurasthenia there is a species of sulphur starvation, due to constant loss of the sulphates and their congeners by way of the urine. Sulphur, taken by the mouth, promotes mineralisation and arrests the excessive calcium losses (*Prof. Robin*).

3° In the case of the auto-intoxications, the combination of sulphur with the phenols and other aromatic toxins tends to neutralize their toxic action. Taurin and bile contain 25 % of sulphur and it is a function of the liver to neutralize toxins. That this activity is heightened by the ingestion of sulphur, is shown by the increased percentage of urea formed in the liver and by the diminution of the proportion of uric acid.

4° The elimination of sulphur by way of the respiratory mucous membranes liquifies the bronchial secretions and destroys micro-organisms. The alkaline silicates of the Mauhourat waters are successful in liquifying the bile in hepatic catarrhal conditions, and they are able to effect a permanent reduction in the hyperacidity of chronic dyspepsia.

The Lake of Gaube.

CLINICAL INDICATIONS

GENERAL INDICATIONS. — Taken by the mouth, the waters of Cauterets are strongly indicated in the management of all *chronic affections of the respiratory passages*, whether associated with lymphatic or arthritic conditions, or whether arising from inflammation due to occupational abuse or strain (singers, barristers, stock-brokers, lecturers, etc.). The local application of sulphur waters has an aseptic action and reduces mucous congestion and these results are reinforced by the general application of the treatment.

Nose. — Purulent naso-pharyngial catarrh, atrophic rhinitis, the spasmodic rhinitis of arthritics, operative treatment of the sinuses (nasal douches, inhalations).

Ear. — Catarrh of the tubes, infiltration of the mucosa with accompanying deafness (tubo-tympanic vapourisation, inhalation by the nose).

Pharynx. — Recurring tonsillitis and pharyngitis, the hypertrophic angina of children, the sequelae of adenoid growths (gargles, sprays).

Larynx. — Occupational catarrhs and purulent conditions, complete or nodular hypertrophy of the vocal cords (inhalation, inhalation of the natural gases of the springs, mixed with vapourised water, throat douches).

Lungs. — Tracheal-bronchitis, both recurring and chronic, catarrhal asthma, emphysema, chronic pleurisy, sequelae of influenza, broncho-pneumonia, empyema, trachea-bronchial glandular disease, inert pretuberculosis, poison gases.

General nutrition. — Pathological fatigue, over-work, convalescence. Arthritic signs : articular (rheumatism), respiratory (asthma), cutaneous (eczema, acné, seborrhoea), nervous (debility, neurasthenia, the algias), digestive (loss of appetite, atonic dyspepsia), gynaecological (dysmenorrhoeae, metritis, growths). These conditions respond to baths, local and general douches and foot baths.

Wounds. — Old wounds, fistulae, sequestra, muscular atrophy, painful scars. These are treated by re-education and physical exercises.

Syphilis. — The cachexic stage which follows the active period of the trypanosome. The treatment aims at remineralisation and elimination of toxins.

CONTRA-INDICATIONS. — Acute disease, febrile tuberculosis, haemoptysis, cardiac conditions with broken compensation, albuminuria.

MEDICAL MEN. — Drs. Anglade, Armengaud, G. Bernard, Bouyer, Castay, Corone, Cosserat, Ducos, Flurin, Fourcade, Got, Julia, Labayle, Longue, Mary, A.-E. Meillon, Pradal, Thierry. Radiologist : Debédat.

The following waters are exported : La Raillière, César, Mauhourat. For particulars application should be made to La Société Thermale.

General view taken from the " Grange de la Reine Hortense ".

LIFE AT CAUTERETS

THE SEASON. — The season begins at the end of May. Immediately after the Paris Derby, society leaves the capital and Cauterets becomes crowded with jaded and debilitated members of the fashionable world. Each is a devotee of a particular form of treatment, and each is intent upon the speedy recovery which will enable him once more to enjoy the pleasures and distractions of life, for which Cauterets offers many facilities.

Simple excursions. — Mountain walks (there are numerous shelters put up by the T. C. F. and the C. A. F.), mountain climbing, botanising, camping out, excursions on horse-back or with mules, carriage driving, motor excursions. Cars on hire.

Sports. — Tennis and golf tournaments, pigeon-shooting competitions ; shooting, trout-fishing in the lakes and torrents of the Hautes Vallées ; dog-shows ; gymkhanas ; donkey-polo ; battles of flowers, balls, fairs, etc., etc. 10 châlets-hotels and shelters in the mountain.

Musical and artistic attractions. — Two theatres, two casinos, popular concerts, classical concerts, cinema, conferences, exhibitions.

The "*Nature Theatre*". — Artistic performances are given by well-known actors from Paris in the magnificent setting where Marguerite de Valois, sister of Francis I., once held her famous Courts of Love.

Motor tours. — *Cauterets is an excellent centre for mountain tours* in the grandest part of the Hautes-Pyrénees. It is a halting station for the service of motor cars belonging to the company of the *Grande Route des Pyrénées*, which connects Biarritz on the Atlantic with the Mediterranean. Electric funicular railways facilitate excursions to the Gorges de Pierrefitte, to Luz-Saint-Sauveur, to the cirques of Gavarnie and Troumouse, to the Abbey of Saint-Savin and to Notre-Dame-de-Lourdes, the goal of pilgrims from all over the world.

Winter sports. — From Christmas onwards, the winter sports at Cauterets are in full swing. There are sleighing excursions, ski-ing competitions, bob-sleighing, luging and skating.

ACCOMMODATION. — There are 4 first-class hotels with hot and cold water, electric light, central heating, bath-rooms, etc. Between them they have 1.400 bed-rooms of which 300 have private bath-rooms.

There are 9 second-class hotels. These are comfortable and have 800 bed-rooms.

There are 10 third-class hotels, unpretentious in style and with 600 bed-rooms.

There are 50 furnished houses. Villas and apartments of every kind are available.

INFORMATION concerning the treatment and the export of the waters may be obtained from La Société Thermale des Pyrénées, Cauterets (Hautes-Pyrénées).

All inquiries concerning the journey, details of residence, villas, boarding-houses, excursions, shooting, fishing, touring, etc., should be addressed to the Syndicat d'Initiative de Cauterets-Attractions, Cauterets (Hautes-Pyrénées). List and tariff of hotels, boarding-houses, villas.

CHATEL-GUYON

(PUY-DE-DOME)

WARM SPRINGS CONTAINING
SODIUM CHLORIDE, MAGNESIUM CHLORIDE
MIXED BICARBONATE AND IRON

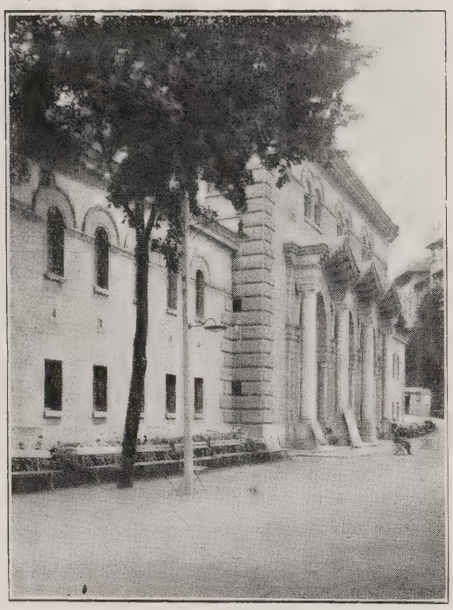
SEASON
1st MAY
TO 15th OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 362
Calais	— 636
Havre	— 577
Bordeaux	— 392
Marseilles	— 472

Motor coach service between Châtel-Guyon and the Central Spas and Vichy.



The " Grands Thermes ".

SEASON
1st MAY
TO 15th OCTOBER

MEANS OF ACCESS
BY TRAIN

P.-L.-M. Railway.

Length of journey from :

Paris	8 hours.
Calais	11 h. 30.
Havre	11 h. 30.
Bordeaux	13 hours.
Marseilles	14 —

Direct trains from Paris. Sleeping-cars.

CHATEL-GUYON AS A SPA

SITUATION. — Modern spa in a picturesque situation on the lower slopes of the Dômes. 2.000 inhabitants. 15.000 visitors.

CLIMATE. — Châtel-Guyon is a typical hill station. Its altitude is 1.300 feet, its soil granite and permeable. It lies in a valley open to the east and protected on its other aspects by vine clad hills and pine mountains. Its climate is mild and dry and at the same time stimulating and tonic, ideal for neuroarthritic subjects.

URBAN SANITATION. — Improved drainage system, electric light, clear spring water from the Volvic mountain. Municipal office of hygiene.

THE SPRINGS AND BATHING ESTABLISHMENT. — *Thirty intercepted springs* yielding more than five million litres daily.

Five of these serve the drinking pavilions in the park (*Yvonne, Deval, Germaine, Louise, Marguerite*).

Two establishments for hydrotherapy. — The *Grands Thermes* recently built and comprising 134 rooms with carbonic acid gas baths of running mineral water at 93°2 F. and with installations for under-water abdominal douches (mineral water at 113° F. under pressure).

The *Henry Establishment* comprises baths at various temperatures and mineralisations, arrangements for intestinal irrigation and masso-lavage and all the latest appliances for hydrotherapy in all its forms.

Besides these, there are two pavilions, one devoted to electrotherapy and massage, the other to the local application of mud. These services are under medical supervision.

The "Parc Supérieur" & the Chalusset.

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — The constituents of the different springs are more or less similar. They differ chiefly in their temperature which varies from 78°8 to 100°4 F.

Warm waters, gaseous, containing sodium and magnesium chlorides, mixed bicarbonates and iron.

Their total mineralisation is about 8 grm. 40 ; magnesium chloride (1 grm. 56) ; sodium chloride (1 grm. 63) ; bicarbonate of lime (2 grm. 17) ; bicarbonate of soda, of lithium and of iron.

There is 1 grm. 112 of carbonic acid per litre.

Their chief characteristic and peculiarity is their *magnesium chloride* content. This salt regulates the tonicity of the smooth muscular fibres of the digestive apparatus, stimulating the secretions of the stomach, the intestine and the adnexa, it is a powerful cytophylactic and aids cellular regeneration.

Contrary to a report too widely circulated, the Châtel-Guyon water is not purgative. It regulates the intestinal functions, whether it be a matter of constipation or diarrhoea, spasm or atony.

THERAPEUTIC USE. — Ingestion of the waters is the principal means of treatment. Baths, different forms of hydrotherapy and various external applications are also of great service.

The *Gubler spring*, belonging to the Société des Eaux and a number of other springs with similar properties privately owned.

The Mathival, Miraton, Légère, Table, Saint-Coust springs are used exclusively for drinking and bottling They are exported and patients are enabled to commence treatment at home and complete it on leaving the station.

As accessory to the cure : Climato-therapy : medium altitude. 1.300 feet. Sports grounds and park, 1.950 ft. Splendid view on the rich plain of Limagne.

Dietetic treatment : special diet tables in all the good hotels and villas under the supervision of the medical society.

Panoramic view : The "Grands Thermes" Casino & Theatre.

CLINICAL INDICATIONS

THERAPEUTIC INDICATIONS. — *a) Indications taken from the study of the digestive functions.* All disorders characterised by functional insufficiency either motor or secretory of the intestine or its glands, whether permanently or at certain periods of the evolution of these disorders.

1. *Intestine.* All forms of colitis emanating from constipation, atonic or spasmodic or from diarrhoea (false diarrhoea, diarrhoea due to gastric or hepato-pancreatic insufficiency, mucous colitis, sequelae of dysentry, toxi-alimentary enteritis). Intestinal lithiasis. Recto-colitis except during ulcerous or inflammatory periods.

2. *The stomach.* Digestive atony, hyposthenic dyspepsia polyvisceral ptosis with auto-intoxication, emaciation and asthenia.

3. *Liver.* Congestive conditions of the liver with intestinal disorders. Abdominal plethora, haemorrhoids. Torpid forms of biliary lithiasis with manifestations of colitis. Angio-cholecystitis during period of rest.

4. *Tropical disorders.* Intestinal troubles (constipation or diarrhoea). Sequelae of dysentry and malaria with anaemia. Congestion of the liver.

b) Indications taken from the general condition. Atonic conditions due to auto-intoxication, diminished nutrition anaemia and lack of salts. Asthenia following digestive infections. Obesity.

c) Indications in children. The Châtel-Guyon waters in small doses and baths may be administered to very young children. It gives remarkably quick and enduring results. The indications are : Diarrhoea or constipation, digestive insufficiency, albuminous or muco-membraneous enteritis. Intestinal auto-intoxication, with attacks of fever or hepatic congestion. Acetonemic vomiting.

CONTRA-INDICATIONS. — Ulcerative conditions of the alimentary canal with tendency to haemorrhage. Intestinal disorders secondary to an organic lesion of the nerve centres or with marked painful neuropathic reactions. Acute infectious conditions. Cancer wherever its site. Active tuberculosis. On the other hand, the cure may have a favourable influence on digestive disorders in subjects predisposed to tuberculosis and in cases of torpid tuberculosis (diarrhoea with enlarged liver due to forced alimentation, diarrhoea due to digestive insufficiency, digestive atony).

MEDICAL MEN. — Drs. Aine, Attaix, F. Baraduc, Bartoli, Baumann, Besset, Mme Besset, Bonnet-Saint-René, Brousse, Cambiès, Casati de Montgolfier, Chagnolleau, Conchon, Foucaud, Fourest (Biological laboratory), Gaehlinger, Jamin, Kolbé, Levadoux, Martin, Matignon, Mazeran, Pradines, Mlle Przedniewictz, Reboul, Riberolles, Villot (X rays, electrotherapy).

DENTIST. — Dr. Chouvon.

View of the Vale of Sans-Souci taken from the Chalusset.

LIFE AT CHATEL-GUYON

AMUSEMENTS. — Châtel-Guyon offers many attractions to occupy the leisure hours of visitors taking the cure. It lies in the heart of Auvergne with its chain of extinct volcanoes and abounds in picturesque localities and wide mountain views. There are many interesting towns and places of historical interest in the neighbourhood. An enclosed park, beautifully laid out, extends for nearly a mile along the banks of the Sardon and ends in a pine-clad hill, the Chalusset, from which there is a magnificent view over the Limagne, Forez and Auvergne mountains.

In the Etablissement des Grands Thermes, there is a large club room for the use of doctors and a library open to all foreign members of the medical profession, where they can listen to the concerts in the park.

The casino, theatre, bathing establishments and establishments for hydrotherapy (property of the Société des Eaux Minérales) are all in the park. Open air theatre, cinema, public concerts and classical concerts, lyric and dramatic performances in the Casino theatre. Children's fair, guignol, croquet, tennis, racing in August.

Well planned sports grounds on a wooded plateau with extensive views overlooking the town.

ACCOMMODATION. — 5 first-class hotels ; hot and cold water ; electricity, central heating ; bath-rooms. 1.000 bed-rooms, 250 with private bath-rooms.

20 second-class hotels, comfortable. 1.200 bed-rooms.

50 third-class hotels, more modest. 1.800 bed-rooms.

120 furnished houses, reliable villas and apartments at all prices.

Dietetic menus in all the hotels and villas.

INFORMATION. — For information regarding the cure and the sale of waters and their products, apply to the Etablissement Thermal Châtel-Guyon-Gubler, at Châtel-Guyon (Puy-de-Dôme) or to the Société des Eaux Minérales de Châtel-Guyon, 6, Square de l'Opéra, Paris.

For other information apply to the Syndicat d'Initiative, Châtel-Guyon.

CONTREXÉVILLE

(VOSGES)

COLD WATERS CONTAINING CALCIUM SULPHATES MAGNESIUM AND LITHIUM, CALCIUM BICARBONATE AND IRON

SEASON
20th MAY
TO 20th SEPTEMBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 336
Calais	— 501
Dieppe	— 469
Havre	— 522
Cherbourg	— 661
Nantes	— 653
Bordeaux	— 830
Marseilles	— 710

Service of Motor-cars.

The Spring.

SEASON
20th MAY
TO 20th SEPTEMBER

MEANS OF ACCESS
BY TRAIN

Est Railway.

Length of journey from :

Paris	5 h. 45
Calais	14 —
Dieppe	9 —
Havre	10 —
Cherbourg	13 —
Nantes	15 —
Bordeaux	16 —
Marseilles	20 —

Direct trains from Paris
(Dining car)
from Marseilles
and from Brussels.

CONTREXÉVILLE AS A SPA

SITUATION. — Spa situated 366 kilometres from Paris, in the heart of the Faucilles, near the watershed separating the basins of the Saône and the Meuse. Altitude : 1.148 ft. 950 inhabitants and 7.000 visitors.

CLIMATE. — Contrexéville is situated in a valley running north and souht. The climate is temperate with rather sharp variations in temperature ; the air is pure, healthy and tonic.

URBAN SANITATION. — Irreproachable drinking water from sources protected from all contamination. The streams are almost entirely covered over. Drainage system. Electric light utilised for all services : the Park, the Hotels, the Town.

THE SPRINGS AND BATHING ESTABLISHMENT. — Five mineral springs in the Park of the bathing establishment : le Pavillon, la Souveraine, le Prince, le Quai, la Duchesse. Outside the Establishment there are further springs : Le Clerc, Thiéry, Mongeot, Great-Source, Châtillon-Lorraine.

Contrexéville owes its wide reputation to the *Pavillon* source. This spring, employed from time immemorial by people of the district for kidney troubles, only became really celebrated after Dr. Bagard, first physician to King Stanislas, had read a paper on the subject to the Royal Society of Science and Art at Nancy on January 10th 1760.

The hydropathic establishment as used to-day is divided into three sections : la *Buvette*, under the Coupole du Pavillon, the *Galeries Promenoirs* and the *Thermes*. The entire establishment was rebuilt in 1910 in an extremely effective Greco-Byzantine style. It is arranged on most modern lines ; there are sixty model bath-rooms, swimming baths, apartments for douches, rooms for massage, both dry and under water, vapour baths, hot-air douches, etc. Rooms for turpentine steam and carbon-dioxide baths ; an excellent electric apparatus perfectly installed, and completed by halls for gymnastics and mechanotherapy, also an apparaus for radiography and a laboratory of biology.

The " Pavillon " Spring.

THE WATERS

CHEMICAL CONSTITUENTS OF THE WATERS. — The Pavillon water, typical of the waters of Contrexéville, is cold (51° F.), clear, colourless and almost odourless, with an agreeable taste, radioactive (0,6 millimicrocurie per litre). Yield 200.000 litres per diem.

The total mineralisation per litre is 2 grm. 4, the most important elements of which are : *sulphate of calcium* (1 grm. 56) ; *sulphate of magnesium* (0 grm. 236) ; *bicarbonate of calcium* (0 grm. 40) ; *sulphate of sodium* (0 grm. 030) ; *bicarbonate of lithium* (0 grm. 004) ; *bicarbonate of iron* (0 grm. 007) ; *silica* (0 grm. 015).

Traces of fluorine and arsenic.

The composition of the other springs resembles more or less that of the Pavillon. The Prince contains more iron, the Quai more magnesium, the Souveraine is more laxative and has a special action on diseases of the liver.

THERAPEUTIC USE. — The Contrexéville cure is essentially a cure by ingestion. The water is drunk in glasses containing 100 to 333 grammes in progressive doses up to the maximum, and then in decreasing doses.

MINERAL WATER EXPORTED. — Contrexéville-Pavillon

PHYSIOLOGICAL ACTION. — The ingested water passes very quickly from the stomach into the intestine ; it is absorbed by the veins of the mesentery and passes through the liver increasing and liquifying its secretions, causing *biliary and liquid stools* ; an excess of water not absorbed passes through the small intestine and flows directly into the large intestine, causing *watery stools* ; the portion passing through the liver passes into the circulation, is carried by the blood which becomes more dilute and, after having washed all the tissues and cleared them of the uric acid, crystals, purins and all sorts of impurities, it passes out through the kidneys, causing polyuria and diuresis.

The water is *diuretic* ; it increases the renal secretions both in quantity and quality and at the same time causes the expulsion of sediment ; sand and calculi of the urinary and biliary passages, and drainage of the tissues ; it is a *disinfectant*.

It is *cholagogue*, *laxative* and *purgative*.

It *stimulates* nutrition and *renewal of mineral* elements.

The diuretic effect is considerable, the urine is abundant, completely decolourised and the density is very low. In a short time a strong current of clear water is formed which passes through the system, washing the blood and the tissues and clearing the body of all its waste products.

MEDICAL MEN. — Drs. Boucher, Boursier, Bricourt, Contal, Etterlen, Graux, Josserand, Lutringer, Schneider, Thiéry.

" Colonnade des Sources ".

CLINICAL INDICATIONS

THERAPEUTIC INDICATIONS. — The following conditions are treated with success at Contrexéville :

1. *Nephritis.* The Contrexéville cure is indicated for all subjects suffering from or having suffered from renal colic, all cases renal disorders, acid gravel (uric acid, urate, calcium oxalate, cystitis) or alkaline gravel (phosphates) or pyelitis, pyelonephritis, nephroptosis. " *Who says gravel, says Contrexéville* ".

a) Uric gravel, or red gravel. Expulsion of urinary sand and gravel, decreased sensitivity or urinary passages. *b)* Oxalic gravel, crystals of oxalate of lime. *c)* Phosphatic gravel, primary or secondary or white gravel. The alkaline urine becomes acid by the cure. *d)* Pyelitis and pyelonephritis with or without calculus are particularly indicated, a small amount of albumin is not a contra-indication. *e)* Nephrectomies. Amelioration of troubles affecting remaining kidney. *f)* Nephroptosis. Movable of floating kidney.

2. *Urinary disorders.* All cases of chronic cystitis improve under the treatment but the lower urinary passage must be clear so that there is no obstacle to micturition. Incontinence of urine due to vesical irritation in gouty children.

3. *Gout.* The treatment at Contrexéville is of service to all gouty subjects without exception, the attacks become less frequent, shorter and less painful and in some cases disappear entirely. White, atonic, chronic gout benefits by the Pavillon cure. Gout with visceral complications, ocular localisations ; utero-ovarian gout, neuralgia and neuritis ; diathesic dermatosis, gouty rheumatism.

4. *Hepatic disorders.* The Contrexéville cure is indicated in cases of congested or engorged liver in obese, gouty and arthritic subjects and in big eaters, in cases due to biliary lithiasis with gout and biliary gravel, when the patients are too weak to undergo the strenuous alkaline cure, also to plethora in cases of numb liver.

5. *Diabetes.* The improvement is most marked in gouty or arthritic diabetes. The sugar diminishes and the uric acid increases.

6. *Albuminuria* due to gout or lithiasis, or of hepatic origin associated with arterial hypertonicity.

7. *Arterial hypertonicity* and early sclerosis. The cure at Contrexéville improves all the excretory functions, reduces the tension in cases of auto-intoxication, in over-wrought subjects and in hypertonicity due to nephritis.

8. *Obese-arthritic disorders* with hepatic insufficiency.

CONTRA-INDICATIONS. — Uncompensated cardiac disease aneurism, acute cardio-vascular affections, cancerous and tuberculous lesions, apoplexy, recent cerebral congestion, marked albuminuria, marked urinary stricture.

Thè Casino.

LIFE AT CONTREXÉVILLE

AMUSEMENTS. — The bathing establishment possesses a magnificent park, planted with beautiful trees of various species; this forms the principal promenade for patients during their cure.

The parks of Bellevue and La Glacière are also very fine.

Beaufitul shops are installed in the new galleries of the bathing establishment where visitors may purchase articles for their use or pleasure.

The Casino, the Theatre and the Club are situated in the park itself, comedy, operetta, comic-opera. Park pavillon : classical concerts.

Tennis. Golf on the Ageville estate (6 acres). Numerous fetes ; children's balls. Fencing, tennis and golf-championships.

Easy and pleasant walks. Beautiful roads for motoring. Ancient oak and beach woods. Picturesque localities. Chênes des Partisans. Chevre-Roche, the valley of Viviers, the Ferme des Evêques. Motor-car service to Bourbonne, Gérardmer, Domremy, Plombières, Verdun. During the season, direct trains perform the journey from Paris to Contrexéville in 5 hours, service beginning 1st June. Three trains a day on each way ; also direct trains from Brussels, Marseilles and Lyons.

ACCOMMODATION. — 5 first-class hotels, hot and cold waters ; electric light ; central heating ; bath-rooms. 595 bed-rooms ; 150 with private bath-rooms.

6 second-class hotels, comfortable. 500 bed-rooms.

5 third-class hotels, more modest. 150 bed-rooms.

25 furnished houses, villas and apartments at all prices.

GENERAL INFORMATION. — For information regarding the cure, the fees and the exportation of the mineral waters, apply to the Société des Eaux Minérales de Contrexéville, 8, rue du Hanovre, Paris ; or to the Dépôt-buvette des Eaux Minérales, 31, boulevard des Italiens, Paris, or to the Etablissement Hydrominéral de Contrexéville (Vosges).

For all information regarding the town itself, apply to the Syndicat d'Initiative de Contrexéville.

DAX

(LANDES)

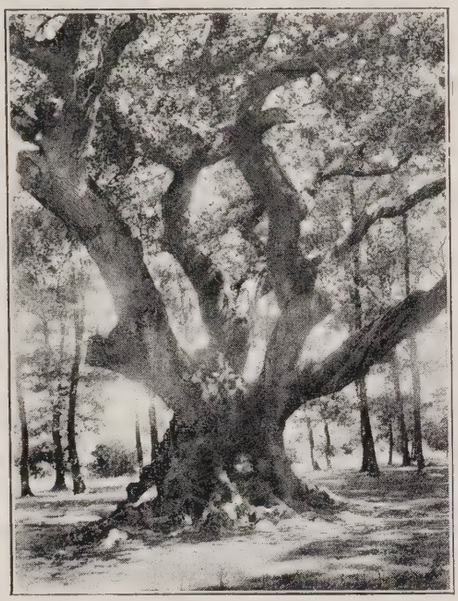
VEGETO-MINERAL MUD AND HOT SPRINGS (147° F.)

SEASON
ALL THE YEAR ROUND

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 736
Havre	— 899
Bordeaux	— 148
Calais	— 1036
Dieppe	— 790
Cherbourg	— 766
Nantes	— 520
Marseilles	— 678
Biarritz	— 64



The oak of Quillacq.

SEASON
ALL THE YEAR ROUND

MEANS OF ACCESS
BY TRAIN

Paris-Orléans and Midi Railways.

Length of journey from :

Paris	12 hours.
Havre	15 —
Bordeaux	2 —
Calais	18 —
Dieppe	15 —
Cherbourg	19 —
Nantes	10 —
Marseilles	16 —
Biarritz	1 —

Through carriages and sleeping-cars : Paris-Pyrenees Express, Paris-Bordeaux-Dax.

DAX AS A SPA

SITUATION. — Dax, watering place, chief town of the district, 12.000 inhabitants, 40 ft. on both banks of the Adour : 10.000 to 12.000 patients are treated every year.

CLIMATE. — Soft and temperate climate, tonic and sedative, temperature equable, atmosphere moist and balsamic due to the numerous warm springs and the neighbouring pine-woods. Average annual temperature 53° F. at 6 a. m. and 57° F. at 6 p. m. which means that the patients can remain in the fresh air all day without being exposed to dangerous variations of temperature. Average seasonal temperature, winter, 46° F. ; spring, 57°3 F. ; summer, 69° F. ; autumn, 55° F. As shown by this the winter is remarkably mild.

Dax is sheltered from the north and especially the north-east by pine forests. The west is the prevailing wind but it is always broken by the forests. It is healthy and soft and charged with ozone. The south wind, elsewhere so irritating, is refreshed by the snows of the Pyrenees. Dax is a splendid type of winter resort for excitable patients in search of a sedative climate and especially for those in whom the susceptibility or disorders of the respiratory organs is accompanied with manifestations of rheumatism.

BATHING ESTABLISHMENT. — The *Grands Thermes* and the *Baignots*, first class.

Thermes Salins and *Dax Thermal*, first and second class.

The *Saint-Pierre baths*, third class. The prices vary according to the category of the establishment.

Besides the bathing establishments, a *Zander Institute of Mechanotherapy* is installed on the most modern lines.

Several *private hospitals and houses for special diet under medical supervision:* Surgical clinic. *Clinics for electricity and radiology.*

DAX

" Etablissement des Baignots ".

THE WATERS

THE SPRINGS. — Considerable yield : five million litres per diem Innumerable springs, all on the lefts bank of the river ; they are remarkable for their high temperature, 147° F.

The principal springs are :

1° The " *Fontaine Chaude* " or " *La Nèhe* ", in the town itself (147° F., 24.000 hectolitres).

2° The *Two Geysers* in the " *Baignots* " bathing establishment (147° F.) which alone yield nearly two million litres of water per diem.

3° The " *Grands Thermes* ", The " *Bastion Sainte Marguerite* " on the heads of which is built the bathing establishment (141° F., 600.000 litres).

4° The " *Rond Point des Baignots* ", which is the property of the city (147° F., 40.000 litres).

5° The " *Dax Thermal* ", recently used (139°8 F., 25.000 litres).

6° The " *Roth* " belonging to the *Grands Thermes* (139°8 F., 25.000 litres).

They are very hot waters with weak mineralisation (1 gr. 024 of fixed residuum per litre) ; they belong to the class of mixed sulphates (sodium and magnesium). These waters are endowed with considerable electric energy and powerful radio-activity. They are among the first of the French radio-active waters, ranking after Plombières and Bains-les-Bains.

THE MUD. — The Dax mud, absolutely unique and highly complex, is the most complete and efficacious natural medicinal mud. It is remarkably oily. It is composed of : 1. A mineral element : the soft fluvial mud of the Adour which, when the water rises, is deposited on the spring heads which rise on the banks of the river itself.

The mud is entirely penetrated by the warm waters and ferments and becomes vitalised by their action.

2. A vegetable element, yielding a rich cryptogamic flora, including algae of the anabania and oscillaria species.

This mud shows an extreme natural radio-activity which emanates from the spring waters ; its presence is proved by the presence of rare gases (helium).

THE SALT WATERS AND MOTHER WATERS. — Besides the warm springs and muds, Dax possesses salt waters and mother waters with sodium chloride and bromo-iodide coming from the Saint-Pandelon saltmines (the Dax Saltmine Company).

MEDICAL MEN. — Drs. Beurois, Bourretere (senior), Bourretere (junior), Roger Cayla, Jean Consiroles (ears, nose and throat), Joseph Dabadie, Darmaillacq (electricity), Defoug (Bains Saint-Pierre), Delmas (Physician of the Bathing establishment), Dufau (nose, larynx, eyes), Feraud, Larauza (physician of the bathing establishment), Louis Lavielle (medical director of the Baignots bathing establishment), René Lavielle (Director of the Institute of Mechanotherapy and doctor in Dax-Thermal), Mangin, Picot, Riberol (surgeon).

The Banks of river Adour.

CLINICAL INDICATIONS

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *General indications : Rheumatism and its diverse manifestations.* The Dax mud is unrivalled for the thermal treatment of all disorders of the muscular system, of rheumatic, gouty and traumatic origin.

2. *Special indications : Rheumatoid arthropathy in general.* Simple chronic articular rheumatism, following acute polyarthritis ; primary chronic rheumatism (chronic progressive articular, nodular and gouty rheumatism, deforming polyarthritis), partial chronic rheumatism, Heberden's nodes, hydrarthrosis (chronic or recurrent), gonorrhoeal talalgia, sciatic and intercostal neuralgia, etc., periarticular rheumatism (periarthritis, periarticular sclerosis) ; fibrous and muscular rheumatism, dry arthritis, myositis and tendinous synovitis, muscular and tendinous contractions, neuritis, writers cramp, sclerodermia, chronic rheumatic arthritis of the hip, rheumatic spondylitis

CONTRA-INDICATIONS. — Acute rheumatism, Bright's disease, scrofula, hemiplegia tendency to congestion, gestation chlorosis, acute articular gout, cardiopathy with asystole, uterine fibromas with haemorrhage, epilepsy and aged patients.

THERAPEUTIC USES. — The *waters* are utilised internally by ingestion. Externally for bath and swimming pond, douches, general and partial baths, etc., the natural vapour is used for complete and local vapour baths.

The *salt waters* and *mother waters* are administered as baths and douches at the *Thermes Salins* which has the monopoly of these waters.

They are most efficacious in diseases of children and of women (anemia, lymphatism, scrofulosis, rickets, metritis, fibroma, uterine disorders, neurosis, neurasthenia).

The simultaneous use of the saline and mother waters and the warm mineral waters produce special therapeutic effects which can only be found at Dax. The high mineralisation of the saline waters (293 grammes of chloride of sodium per litre) added to the mildness of the Dax climate, constitutes a great element of success.

DAX

The "Grands Thermes"

LIFE AT DAX

There is no end to the visitors to Dax-Thermal ; they follow each other in uninterrupted succession throughout the year. Dax is peculiarly a resort of self care.

Places of interest. — In Dax and its neighbourhood : the Cathedral, the Borda museum, the Arenas (Spanish and Landais bull fights), the Bois de Boulogne, the salt-mines, the oak of Quillacq, the church of Saint-Paul-de-Dax (Roman apsis XIIth to XIIIth centuries).

Excursions. — Walk to the cradle of St. Vincent de Paul, at Buglose (much frequented pilgrimage), Montfort-en-Chalosse, Gamarde-les-Bains, Préchacq-les-Bains, Tercis-les-Bains, Chateau de Poyanne (renaissance style), Peyrehorade (Château d'Aspremont, famous salmon fishing), Sorde l'Abbaye (XIth century monastery), Benesse-les-Dax (old wind-mill, general view of the Pyrenees), Lac d'Yrieu, Capbreton-Plage, Etang d'Hossegor, etc.

Dax is near the Cote d'Argent coast and the Pyrenean resorts, and one and a half hours from the Spanish frontier.

AMUSEMENTS. — Racing, Bull fights, famous foot-ball and basket-ball matches, tennis, fishing in the Adour (excellent fishing), turtle-dove and ring dove shooting a speciality (March to October), etc. Theatre, casinos, public concerts by musical and choral societies, cinema, orchestra at the baths during the Summer, two free concerts daily.

Charabancs for excursions.

ACCOMMODATION. — 2 first-class hotels, hot and cold water ; electricity, central heating ; 350 bed-rooms.

6 second-class hotels, comfortable, about 300 bed-rooms.

4 third-class hotels, more modest, about 800 bed-rooms.

Furnished houses, villas and apartments at all prices.

GENERAL INFORMATION. — For information regarding the cure, tariffs of the Thermal establishments, hotels, etc., apply to the Etablissements Thermaux, Baignots, Grands Thermes, Dax-Thermal.

For other information, apply to the Syndicat d'Initiative of Dax, Casino, Dax.

EVIAN

(HAUTE-SAVOIE)

MIXED COLD BICARBONATE WATERS
WEAKLY MINERALISED

(High situation : 1.220 to 1.625 ft. above sea level.)

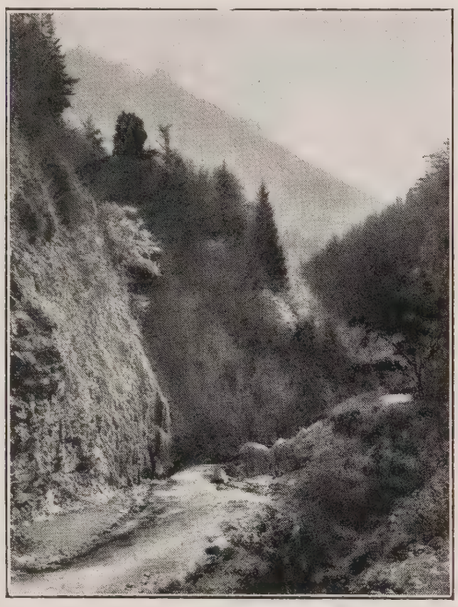
SEASON
15th APRIL
TO 15th OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from

Paris	Kms. 553
Marseilles	— 494
Havre	— 770
Calais	— 773
Dieppe	— 701
Cherbourg	— 697
Nantes	— 735

Terminus
of the "*Route des Alpes*"
motor coach service.



The Valley of the Dranse.

SEASON
15th APRIL
TO 15th OCTOBER

MEANS OF ACCESS
BY RAIL

P.-L.-M. Railway.

Length of journey from :

Paris	13 hours.
Marseilles	14 —
Havre	16 h. 30.
Calais	16 h. 30.
Dieppe	16 hours.
Cherbourg	18 —
Nantes	21 —

Steamer service from
Geneva and Lausanne

EVIAN AS A SPA

SITUATION. — Evian is one of the principal towns of the Haute-Savoie and is picturesquely situated on the French side of the Lake of Geneva. In form it somewhat resembles an amphitheatre owing to its position on the slopes of the Savoie hills It has 5.000 inhabitants and about 15.000 visitors yearly.

CLIMATE. — Evian owes its agreeably temperate climate to its moderate altitude, its general orientation towards the north and its position on the borders of the lake. It is sheltered from high winds by the mountains surrounding the Leman basin and is refreshed in summer by the atmospheric currents always moving between the mountains and the lake ; the properties of the atmosphere are *remarkably sedative*, and merit special mention. This climate, tranquil without being relaxing, is in fact a characteristic trait of the medical aspect of the resort It produces very beneficial effects ; calming the various manifestations of nervous excitement.

URBAN SANITATION. — The hygienic arrangements are perfect. — Electric lighting. — Excellent drinking water. — Drainage system. — The sloping ground allows the natural flowing off of rain water.

BATHING ESTABLISHMENT. — A model establishment, inaugurated in 1903 on the most modern lines, and constantly improved, admits the application of all forms of physiotherapy under medical supervision : balneotherapy, thermotherapy, phototherapy, massage, electrotherapy.

There is also a complete installation of X rays.

There are special grounds for physical re-education under the supervision of a specialist.

The Cachat Establishment

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — The various natural mineral springs of Evian are divided into several groups, the principal one of which includes the celebrated *Cachat spring.*

The *Cachat spring*, known for the longest period, and the control gear of which is considered one of the most perfect extant, has made the therapeutic reputation of Evian.

It is a cold water (51° F.), non-gaseous but highly aerated and only weakly mineralised ; the mineralisation consisting for the most part of alkaline carbonates and not exceeding 0 grm. 50 per litre

If the physico-chemical composition does little to commend the Evian waters, it is nevertheless the reason of its great digestibility and of its diuretic properties long since established by clinical observation.

The Evian water is a type of *diuretic water* extremely suitable for lavage and for disintoxication through the renal tract

PHYSIOLOGICAL ACTION AND TREATMENT. — Whilst recognising the effects the waters have on the phenomena of nutrition, the Evian cure must primarily be considered a *cure by diuresis,* the object of which is to stimulate the renal function physiologically by the methodical use of the mineral water. It is for this reason that the Evian water is said to act more by what it carries away than by what it brings. Generally speaking, the cure consists in drinking the mineral water between meals, and for the most part, in the morning fasting.

Normally, following the morning draught, the water is not retained in the stomach ; it is quickly absorbed by the intestine, passes through the liver, enters the general circulation and is soon expelled through the kidneys, causing a copious and shortlived polyuria ; the volume of urine passed during the two hours following the drinking of the water exceeds, often to a remarkable degree, the volume of water ingested. The passage of this diuretic stream through the body and the urinary passages is the characteristic phenomenon of the cure. It explains its two principal actions : *the general cleansing and disintoxicating action and the local action of lavage of the urinary passages.*

Among the means employed to promote the polyuria, one of the most important consists in utilising *the well known means of favouring diuresis, the horizontal position.* All patients who can do so are advised to drink the water in the horizontal position and to remain thus for an hour and a half or two hours afterwards The Cachat water is bottled, so that patients may continue the cure at home

General view.

CLINICAL INDICATIONS

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *General indications :* The Evian cure is especially indicated in the majority of those morbid conditions constituting neuro-arthritism.

Gout : Gout in all its forms, including gouty rheumatism, is amenable to the cure by diuresis, whether associated with gravel or not.

Neurasthenia : Besides the cure by imbibition, these patients benefit by the climate and the physio-therapic resources of the resort.

Diabetes : Arthritic diabetes, especially when associated with gout or when renal manifestations are present

Plethoric Gourmands : The cure by imbibition combined with supervision of their food and general health results in reducing their weight and arterial tension

Children and adolescents of neuro-arthritic parents in whom it is often advisable to combat uricemic tendencies by early treatment by diuresis.

2. *Local indications. The digestive system :* nervous dyspepsia, hypersthenic dyspepsia, muco-membranous entero-colitis especially when accompanied by diarrhoea.

The liver : certain hepatic disorders especially cholemic conditions and *biliary lithiasis* with slight cirrhosis ; *hepatic lithiasis* in cases of painful attacks or congestion when the more drastic cure of Vichy is not easily borne.

The *cardio-vascular system : hypertonia, arterio-sclerosis.* In cases of this kind, the cure must be very carefully regulated. The more permeable the kidneys, the better the effects produced by the diuresis cure.

The *urinary system : albuminuria* is relieved by the Evian cure in so far as is considered advisable either to free the kidneys of the abnormal products encumbering them or to alleviate the inconvenience to which chronic nephritics are subject, owing to inefficient excretion of urinary impurities.

Urinary lithiasis : in the early phases to prevent the formation of calculi ; in the phase of gravel and calculi, in order to promote their expulsion ; in the surgical phases, either preparatory to operation or after nephrolithotimy in order to wash the kidney.

Urinary suppuration : The diuresis cure is particularly recommended in *pyelonephritis* and *pyelitis* (without retention).

Cystitis and urethritis : Cases tending to chronicity and unable to tolerate local treatment and in which gouty diathesis is the main factor.

Prostatitis : In order to combat ascending infection so long as vesical evacuation is assured ; in order to wash out the urinary passages after prostatectomy.

MEDICAL MEN. — Drs. Bergouignan, Bordet, Cottet, Dufour, Eyraud-Joly, Francina, Infernet, Lévy-Darras, Malavialle, Martinaud, Soulier, Trombert.

SPECIALISTS : Drs. Ballet, director of the " Bains d'Evian ", Barthe de Sandfort (paraffitherapy), Daviot and Moiroud (mouth, teeth).

Meillerie.

LIFE AT EVIAN

AMUSEMENTS. — The season at Evian is considered particularly brilliant on account of the mundane, literary and artistic personalities who meet there. But the different bathing establishments are disposed along the borders of the lake and inland towards the famous chestnut-trees of the surrounding country in such a way that patients are never disturbed by excessive animation. Peaceful surroundings and a clear, exhilarating atmosphere make it possible for every patient to live according to his tastes and the exigencies of his health, allying the advantages of rest with the pleasures of interesting society.

The lake is ideal for boating, yachting and fishing. The modern and beautiful casino with gardens running down to the borders of the lake, offers all kinds of amusements : theatre, balls, concerts, music-halls ; during the season, it is often the centre of gorgeous battles of flowers and brilliant venetian carnivals. A fine golf course, covering 65 acres, numerous excellent tennis courts and pigeon shooting in connection with which famous championships are held, combine to make Evian the most important sports centre of Savoie.

TOURING. — Starting place of the famous and magnificent « *Route des Alpes* » Evian-Nice, Evian is an exceptionally good touring centre, having in its near neighbourhood places of interest such as the Gorges de la Dranse, the lake of Montriond, the valleys of Abondance, Morzine and Bellevaux, etc. ; these tours are much facilitated by an extensive motor-coach service.

For lovers of walking tours, there are fine roads and most picturesque scenery both along the lake side and in the surrounding country and for those who enjoy climbing there is a varied choice of mountains : Ménuse (5.470 ft.), the Dent d'Oche (7.230 ft.), les Cornettes de Bise (7.992 ft.), etc.

ACCOMMODATION. — 1 hotel de luxe, 4 first-class hotels, hot and cold water, electric light, central heating, bath-rooms. 770 bed-rooms, 300 with private bath-rooms.

8 second-class hotels, comfortable. 480 bed-rooms.

20 third-class hotels, more modest. 600 bed-rooms.

Furnished houses, villas and apartments to suit all tastes.

GENERAL INFORMATION. — For information regarding the cure, the tariffs of the bathing establishments, the exportation of the waters, apply to the Société des Eaux Minérales d'Evian-les-Bains (Source Cachat), 4, place de l'Opéra, Paris, or at Evian (Haute-Savoie).

For information regarding accommodation, etc., apply to : Syndicat d'Initiative d'Evian-les-Bains, place de l'Hôtel-de-Ville, Evian-les-Bains (Haute-Savoie).

LAMALOU

(HÉRAULT)

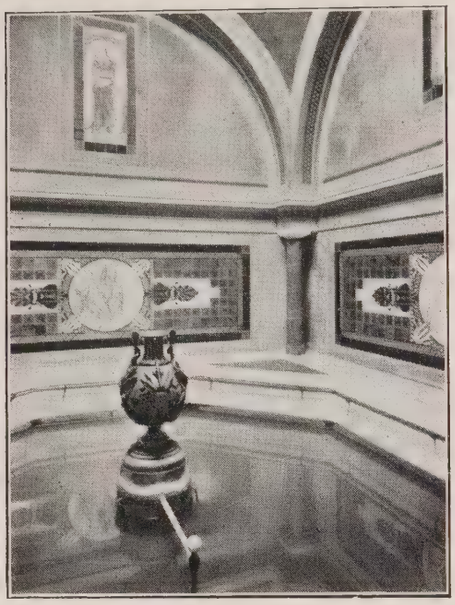
WARM VOLCANIC SPRINGS CONTAINING BICARBONATES AND FERRO-ARSENATES

SEASON
1st APRIL
TO 30th NOVEMBER

MEANS OF ACCESS
BY ROAD

Distances in kilometres from:

Paris	Kms. 780
Bordeaux	— 385
Lyons	— 450
Marseilles	— 260
Toulouse	— 170
Barcelona	— 350
Montpellier	— 80
Carcassonne	— 125



One of the twelve pools

SEASON
1st APRIL
TO 30th NOVEMBER

MEANS OF ACCESS
BY TRAIN

Paris-Orléans, P.-L.-M. and Midi Railways.

Length of journey to Lamalou from :

Paris	15 hours.
Bordeaux	10 —
Lyons	9 —
Marseilles	7 —
Barcelona	9 —
Montpellier	2 —
Béziers	1 —

LAMALOU AS A SPA

SITUATION. — Lamalou-les-Bains in the department of Hérault, 800 kilometres from Paris is situated in the valley of the Orb in the midst of the hilly country uniting the Cevennes with the Montagne Noire on the Montpellier and Montauban line. Altitude 650 ft.

CLIMATE. — Temperate Mediterranean climate ; the climate of Lamalou is remarkable for the purity of the air and its mild temperature. The Mistral is unknown. Spring and Autumn are particularly favourable and the season commences at the very beginning of April and lasts until the end of November. In fact, it is a not uncommon thing for the last visitors to remain until Christmas eve. The best time of the year to visit this resort, however, is in May, June, July, the months of July and August being the most crowded. The best time for sufferers from nervous complaints is in Spring or Autumn, whilst the height of summer is best for rheumatic complaints. 48 days of rain a year.

URBAN SANITATION. — Spring drinking-water is brought from the Montagne Noire. Electric Lighting. Lifts. Modern hygienic installations. Drainage system with periodical flush of water, and all hygienic arrangements of the best.

THE SPRINGS AND BATHING ESTABLISHMENT. — The spa of Lamalou possesses three groups of springs and to each of these groups a hydrotherapeutic establishment is attached ; — Lamalou-le-Bas or l'Ancien, Lamalou-le-Centre and Lamalou-le-Haut.

The warm waters rise from Silurian strata. The warmest (Lamalou-le-Bas) reach a temperature of 125°6 F. The least warm (Lamalou-le-Centre) have a temperature of 64°4 F. only.

The bathing establishments are furnished with every requisite apparatus for balneotherapy, and adjoin the hotels.

General view.

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — The main principles are bicarbonate of soda, of magnesium and of iron. Arsenates of soda and of copper, lithium, manganese, strontium and radium (M. et Mme Curie) helium and argon (Moureu) are also found. These waters might be definited as warm, bicarbonated, plurimetallic and radio-active.

PHYSIOLOGICAL ACTION AND TREATMENT. — The principal physiological effect is to greatly increase the activity of the circulation and to promote metabolism. The action of the waters is tonic and sedative ; *tonic* to the nerve elements and *sedative* to pain.They restore the general condition (Prof. Landouzy).

The therapeutic measures vary in the different establishments. There are several institutes for re-education.

The principal mode of treatment is by bathes in swimming-baths. Internal administration is accessory to the external treatment.

Many patients prefer, instead of one season, two cures during the year, one in spring and one in autumn.

PRINCIPAL THERAPEUTIC INDICATIONS. — *Disorders of the* nervous system especially chronic disorders of the spinal cord. The action of the Lamalou waters on the " pain " is remarkable and for this reason Lamalou is the spa for spinal and nervous affections.

The best known specialisation of the cure relates to *Tabes*. In fact, the name of Lamalou has become inseparable from Tabes in the mid of the physician.

Medullary disorders of diverse origin, arthritism, disorders following fatigue, overstrain and infectious diseases.

The effect of the cure at Lamalou is particularly remarkable on toxinfection paralysis ; paralysis ocurring during the course of or consequent on diphteria, typhoid fever, measles, scarlatina and paludism ; paralysis following poisoning contracted by trade-workers, or medicinal poisoning (by arsenic and mercury). These forms of paralysis have been known to disappear rapidly during, or a short time after, treatment at Lamalou.

In medullary and all nervous affections of specific origin, the Lamalou cure forms a useful adjunct and complement to the routine treatment. Large medicinal doses of the waters may be employed without inconvenience.

The efficacy of the Lamalou waters is the greater, the more recent the lesion of the nerve centres.

Painful symptoms, lightning pains, visceral crises, paresis of the sphincters, trophic disorders, general weakness.

Further indications. Rheumatic affections (sciatica and neuralgia). Chlorosis, anaemia, (neuralgia due to anaemia). Neurosis, various neurasthenic conditions, paralysis and hysterical contractures.

The Banks of the Orb.

CLINICAL INDICATIONS

THERAPEUTIC EMPLOYMENT. — The Lamalou waters are employed in baths (the famous swimming baths of Lamalou) and are given by the mouth. The Usclade, Bourges, le petit Vichy and la Vernière springs are the most renowned. The waters are exported in bottles On this subjects, Dr. A. Rotureau, the eminent hydrologist, expresses his opinion as follows "The waters of Lamalou, particularly taken internally, have been recommended for gravel of the liver and kidneys, albuminuria and diabetes, in certain splenic and hepatic congestions, in accidents following syphilis and metal poisoning, for Tabes and in traumatic paralysis consecutive to the deposit of an interior exudate ".

Professor Landouzy also says :

" The living organised medical active principle represented by the Lamalou springs are available in swimming-baths at *Lamalou-le-Bas* and *le-Haut*, in baths at Lamalou-le-Centre and for internal administration, without taking into account the therapeutic effect of the natual hot-air baths, footbaths, douches, massage and Oertel's treatment, all of which remedies are of the greatest value to the legions of invalids, who, although coming here primarily for impotencies of the members, often suffer in an equal degree from troubles of the general nutrition, such as gastro-intestinal disorders, more or less immediately due to medullar sclerosis "

CONTRA-INDICATIONS. — Tuberculosis, suppurative skin-diseases, all congestive conditions and all acute stages.

MEDICAL MEN. — Drs. Cauvy, Maurice Faure, Ferret, Gontier, Ménard, Michaud, Georges Tabarie.

View of the Station.

LIFE AT LAMALOU

AMUSEMENTS. — Casino, theatre, concert, cinematographs, and symphony concerts daily in the public promenades.

EXCURSIONS. — Excursions into the mountains are very numerous both for the pedestrian and the motorist. The roads are very good and l'Espinouze, Lacaune and other heights where the air is always delightfully fresh are easily accessible.

In the immediate neighbourhood of Lamalou, the *Pedestrian* can enjoy shady walks beneath the pines of the *Usclade*, the chestnut trees of *Villecelle* and *le Frausse* and the olive trees of Bardéjean. There is also the pilgrimage of Capimont with its beautiful dolomotic rocks; the ascent of Saint-Micher girdled by a triple line of ruins — a silent reminder of the passing of Simon de Montfort; the excursion to the Caroux, a plateau 3,470 ft. above sea-level where a superb view extending to the Mediterranean can be obtained of the Ventoux plain (Alps) and of the neighbouring plateau of the Plô de Brus (Old Roman Camp) — the Canigou (Pyrénées).

For Cyclists and Motorists, there are the *Gorges d'Heric*; *Colombier* with its castle and Saracen tower; *le Pont du Diable*; *Saint-Gervais*; *Mourèze*; *Lacaune, la Montagne Noire*; *Carcassonne*; the *Gorges du Tarn* and the Aigoual.

For the archaeologist, there is the delight of exploring *Saint-Pierre-de-Rhedes* — a romance in stones of the 9th century; Villemagne (Abbey of the 8th and church of the 15th and 16th century, Mint); *Boussagues* — a veritable architectural museum (Castle of the 12th century, manor and church of the 14th century, Maison du Bailli (bijou renaissance of the 16th).

SPORTS. — Beautiful national and departmental roads for motor-cars. Good wild boar hunting, hare and partridge shooting. The Orb and its tributaries supply an abundant quantity of fish (trout and other river fish).

Each year, tennis tournaments take place at Lamalou.

ACCOMMODATION. — 3 first-class hotels, hot and cold water; electric lighting, 250 bedrooms, 50 with bath-rooms.

10 comfortable second-class hotels; 600 bed-rooms. Thermal Establishment communicating direct with the hotels.

5 third-class hotels, more modets; 250 bed-rooms.

Furnished houses, apartments and villas.

GENERAL INFORMATION. — Apply to the Etablissements Thermaux de Lamalou-le-Bas et Lamalou-le-Centre (Sté Cère et Cie) at Lamalou, or to the Etablissement Thermal de Lamalou-le-Haut (M. Cros-Aguillon, Director and proprietor) or to the Syndicat d'Initiative, Hôtel de Ville, Lamalou.

MEANS OF ACCESS. — The Midi Railway from Montpellier to Montauban via Bédarieux and Castres. From Paris (Quai d'Orsay) to Lamalou by P.-O. Railway, through carriages of all classes; by the P.-L.-M., one change at Montpellier; also via Auvergne (P.-O., or P.-L.-M.).

LUCHON

(HAUTE-GARONNE)

WARM SPRINGS, CONTAINING
HYDROGEN SULPHIDE AND SODIUM SULPHIDE

(Climatic station at SUPER-BAGNÈRES ; altitude 5906 ft.)

SEASON
1st MAY
TO 15th OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 817
Havre	— 1034
Nantes	— 612
Bordeaux	— 362
Cherbourg	— 904
Calais	— 1091
Dieppe	— 941
Marseilles	— 542

The " Lac d'Oo " Falls.

WINTER SPORTS,
DECEMBER
TO MARCH

MEANS OF ACCESS
BY TRAIN

Paris-Orléans and Midi Railways.

Length of journey from :

Paris	16 h. 30.
Havre	20 hours.
Nantes	16 h. 30.
Bordeaux	9 hours.
Cherbourg	24 —
Calais	20 h. 30.
Dieppe	20 hours.
Marseilles	12 h. 30

LUCHON AS A SPA

SITUATION. — In the heart of the Pyrenees at an altitude of 1.930 ft. on the site of the old Roman baths. Chief town of canton of Haute-Garonne. — 4.000 inhabitants. — Capable of receiving 15.000 visitors at a time.

The bathing establishments are open throughout the year.

The busy season is from May to October.

CLIMATE. — Average hill climate. The valley of Luchon was already celebrated in the time of the Romans. Running north-east and south-west, it is sheltered by high peaks and the wooded hills surrounding it. The air is dry and pure ; its action is both sedative and tonic.

Average summer temperature is 67° F.

URBAN SANITATION. — Carefully superintended. Excellent drinking water (the Lys spring) : more than 1.000 litres per head per day. Service of street cleaning. Inspection of slaughter house and markets by special agents. Electric light. Municipal office of sanitation in the hands of a doctor.

THE SPRINGS AND BATHING ESTABLISHMENT. — Total yield 600.000 litres per diem.

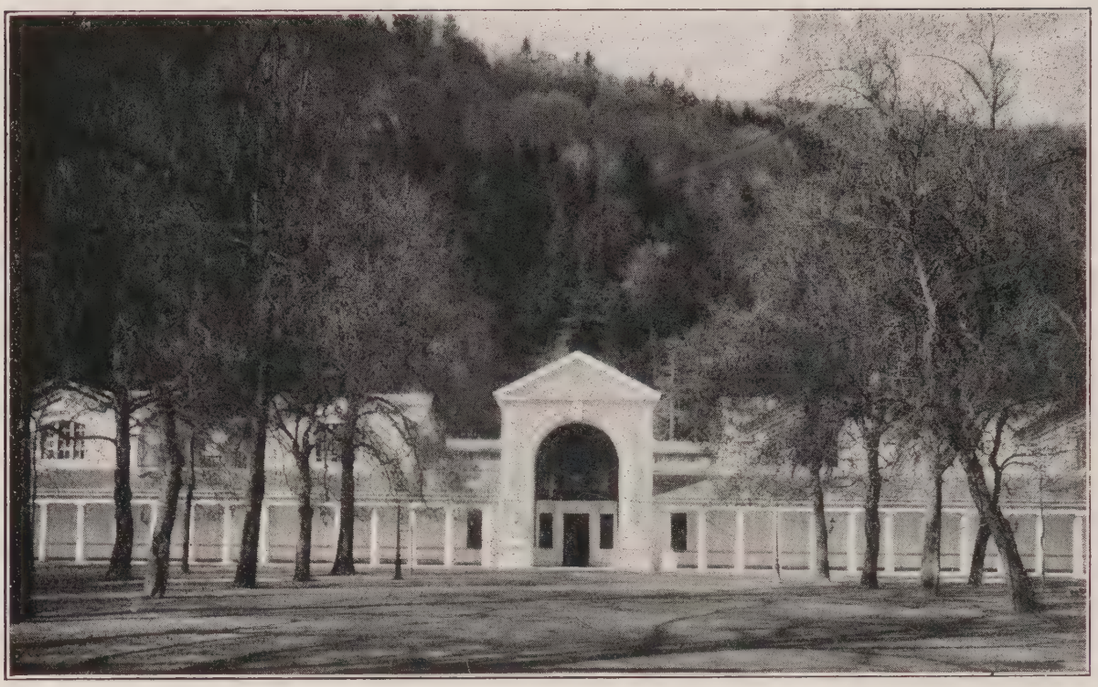
Luchon possesses about sixty springs, forty of which are in use. They rise from granite or at the contact of granite and slate quartz strata and vary in temperature from 71° to 150°50 F. The sulphur element is from 1 to 9 centigrammes per litre.

The best known are : *Bayen*, 150°50 F. ; *Pré*, 146°86 F. ; *Grotte Supérieure*, 136° F. ; *Reine*, 130°75 F. ; *Romains*, 120° F. ; *Enceinte*, 120° F. ; *Bordeu*, 120° F. ; *Etigny*, 118°15 F. ; *Blanche*, 116°50 F. ; *Bosquet*, 109° F. ; *Pré II*, 107°55 F. ; *Sengez*, 105°45 F. ; *Ferras*, 103°30 F., *Lepape* (radio-active).

The *bathing establishment* is built at the base of Superbagnères, in the midst of the town and quite close to the springs ; it is erected on the site of the Pompei in baths and is furnished with every appliance of balneotherapy ; 130 bath-rooms, large and small swimming baths, douches, apparatus for atomization, makes it one of the most up-to date establishments.

The *Ravi* spring (silicated, alkaline, sulphurated) is used with success as a drink in cases of renal and vesical disorders.

The *Pavilion Charles Moureu* is utilised solely for treatment by radio-active waters.



The Bathing Establishment.

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — These waters, clear at the source oily to the touch, acquire in contact with the air a more or less pronounced yellowish-green tinge according to the quantity of sulphide contained. A few of these waters (Pré II, Ferras and Blanche) become milky by the precipitation of sulphur ; this is a special phenomenon of Luchon called whitening or *blanchiment.*

The dominant principle of mineralisation is the sulpho-hydrate of sulphur and sodium. Carbonates, silicates, metals revealed by the spectroscope (Bardet) and sulfuraire are also found. The sulphur takes several forms. It comes off in the form of sulphuretted hydrogen and sulphur vapour ; it is found in complex sulphur compounds also alone in the natural state. Finally it combines to form hyposulphites. According to these transformations, the springs have been classed as fixed springs (stimulating), whitening springs (cutaneous affections), hyposulphite springs (more sedative).

They contain rare gases, argon, nitrogen, emanations of neon.

Their radio-activity, examined for the first time in 1908 by Professor Moureu and his assistant, M. A. Lepape, has lately been the object of very important communications to the Académie des Sciences (October 1920 and June 1923).

As a result of the new researches carried out at the research laboratory of the Luchon bathing establishment, M. Lepape has found in one of the springs, which will hence-forward *bear his name*, an emanation of radium of 41,5 millimicrocuries per litre in the water where it leaves the rock. « This latest asset raises the station to the first rank of French radio-active stations, because five of its springs already employed have a higher tenor of emanation than the Bourboule spring, which, until this discovery, held the highest rank in France ».

The waters with such a high radio-active power have been *utilised at once in a special pavillon called* the " Pavillon Ch. Moureu ".

PHYSIOLOGICAL ACTION. — These waters owe their *tonic* action to the sulphur ; they modify the atony of the tissues by an improved circulation visible on the skin and mucosa, the secretion and excretion of which return to the normal. They are drying, keratinising (as in weeping eczema) or exudative according to the dose.

The sixty springs of Luchon offer an absolutely unique scale of variations in temperature 71° to 150°50 F. and of ascending sulphuration from 1 or 2 centigrammes to 9 centigrammes. It must be noted that the most radio-active are *eminently sedative*, a characteristic which has not hitherto been sufficiently emphasised, for is often said sulphuration is a synonim for excitation. More or less marked increase of peristalsis, improved appetite, more copious urine with discharge of urates and excremental products, habitual return of strength and mental activity are so many signs of the striking activity imparted to the various cellular elements : the satisfactory modifications of the arterial tension have been the object of recent research (Source Lepape).

Sulphur is an integral part of the human cell; it is found in considerable quantity in the haemoglobin which explains the role of the waters of Luchon in general nutrition. Wounds and ulcerations heal more quickly, thanks to the stimulation of the movement of phagocytes.

The sulphur vapour allays coughs, modifying the secretions of the respiratory tract and assists intra-cellular oxidisation ; it has a general tonic action being especially suited for renewing the minerals of the body (A. Robin).

LUCHON

The Lake.

CLINICAL INDICATIONS

PRINCIPAL THERAPEUTIC INDICATIONS. — The following diseases may be cured by the Luchon treatment :

1. *Chronic herpetic arthritic disorders of the respiratory tract :* Moist Catarrh, " the more moist the catarrh, the more efficacious is the action of the sulphur " (Rathery). Chronic coryza with hypertrophic strinitis, coryza in lymphatic children with spread adenoids not in protruding tumour ; chronic angina, granular pharyngitis with hypertrophic tonsils ; chronic arthritic or professional laryngitis, chronic bronchitis (catarrh) humid asthma without cardiac complications. Convalescence after influenza. *Tubotympanic catarrh* and the deafness which accompanies it. " Luchon is the spa for deafness " (Landouzy).

For these various affections of the respiratory tract, the baths, douches and the ingestion of the waters aim at the cause, whilst the gargling, atomisation and steam inhalation are directed against the local condition. *The inhalation of sulphur vapours protect the mucous membrane against further winter attacks.*

2. *Skin troubles :* seborrhoeic conditions, eczema (especially humid forms), arthritic acne, rosacea acne of the menopause, polymorphous acne of the lymphatics, alopecia, psoriasis.

3. *Syphilitic manifestations,* in the secondary and tertiary periods of the disease ; the tolerance of mercury is acquired through the sulphur and the patients obtain relief by the effect of the sulphur waters and the mountain air.

4. *Chronic rheumatism, muscular atrophy :* Massage completes the cure.

5. *Leucorrhoea* and *blenorrhoea.*

6. The sedative climate and the absence of wind make Luchon specially adapted for *nervous asthenics* and *psychasthenics* who find sleep there and refreshing quiet.

All forms of hydrotherapy are employed at Luchon.

CONTRA-INDICATIONS. — Diseases of liver and kidneys, diseases of the heart badly compensated with arterial tension, marked obesity, haemoptysis, cancer.

But the radio-active waters of the Lepape spring make the cure of Luchon adaptable for rheumatic subjects suffering from heart disease.

TREATMENT. — Luchon spa is adapted in a strinking degree to the furthering of puericulture. The altitude, the tonic waters, expedients of every kind.

Luchon is a spa for children.

Although varied in its application, the treatment is primarily external. Baths of various types, large baths of strong and stimulating water, hygienic swimming baths. General and local douches, and all their modifications, local and general *natural vapour* baths, atomization, etc.

Services for gargling and nasal douches. Lastly, *inhalation* and massages room in *spontaneous* vapour which constitutes the great speciality of the Luchon treatment. Since 1920, a physiotherapic institute makes possible the application of electricity and mechanotherapy (a speciality is made of the treatment of scoliosis in early life). Oertel's treatment is the object of a special organisation.

EXPORTED WATERS. — 1. *Sulphur water :* Pré I, Romains, Bordeu ; 2. *Ravi water,* diuretic, slightly laxative.

MEDICAL MEN. — Drs. Audubert, Baqué, Barrié, de Beauchamps, Comet, Doit-Lambron, Dutech, Cazal-Gamelsy, Germès, De Gorsse, Estradère, Ferras, Maleplate, Marcailhou d'Aymeric, Pelon, Peystoureau, Sabatié, Salles, Sammuler, Spont-Volovatz, De Torrès.

Dr. Molinéry, directeur technique, does not act as consultant.

LUCHON

General view.

LIFE AT LUCHON

AMUSEMENTS. — 70.000 tourists and holiday makers visit Luchon annually, apart from the usual clientele of patients. There is a magnificent casino in the centre of the town, furnished with all the amusements of a first class spa : theatre, concerts, balls, guignol, card and gaming rooms. Battles of flowers, riding, tennis, line-fishing, izard hunting. Race-week. Golf.

EXCURSIONS. — Luchon deserves its *universal fame* as a centre for all excursions in the Pyrenees. From drives into the numerous adjoining valleys, to mountain excursions conducted by guides on horseback, in picturesque costumes. All ones desires as a climber can be satisfied even to the ascension of the principal glaciers accompanied by guides on foot, mountaineers with muscles of iron. The ascension of the Maladetta, 11.063 ft., and its glaciers can easiy be undertaken from Luchon ; it is the highest point of the Pyrenees. Luchon is the centre of the " Pyrenees road " and a halting place of the motor-car service organised by the Midi Railways Company : *from Luchon to Biarritz and Luchon to the Côte Vermeille.* Before leaving Luchon, the valley du Lys, the Cascade d'Enfer, the road of the port of *Venasque* and the *Hospice de France*, 4.420 ft., should be visited ; also *Superbagnères*, 5.906 ft., the *lake of Oo*, 4.875 ft., its famous waterfall and the remarkable Roman Cathedral at *Saint-Bertrand de Comminges* (XIth century).

WINTER SPORTS. — In August 1912, the Midi Railway Company inaugurated an electric railway which runs from the Springs to the plateau of Superbagnères, 5.906 ft., in 45 minutes. A luxurious hotel for fresh air treatment at the top of the mountain from which a superb panorama can be seen, assures comfort for tourists. Winter visitors find excellent conditions for winter sports.

Complete arrangements for ice and snow sports, sports meetings and international championships from December to March. Ski Guides.

ACCOMMODATION. — 5 first-class hotels, hot and cold water, central heating, electricity, bath-rooms. 520 bed-rooms, 200 with private bath-rooms.

13 second-class hotels, comfortable. 480 bed-rooms.

5 third-class hotels, more modest. 130 bed-rooms.

140 villas. 200 furnished houses and hygienic apartments at all prices.

GENERAL INFORMATION. — For information concerning the treatment, the tariffs of the bathing establishment, the exportation of the mineral waters, apply to the Directeur des Etablissements Thermaux et de l'Institut de Physiothérapie, or to the Syndicat d'Initiative de Luchon, Luchon.

MONT-DORE

(PUY-DE-DOME)

THERMAL WATERS CONTAINING
BICARBONATES, IRON, ARSENIC AND SILICA

(Altitude : 3.445 ft.)

SEASON 15th MAY
TO 1st OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 386
Havre	— 625
Dieppe	— 597
Nantes	— 460
Bordeaux	— 343
Marseilles	— 450
Calais	— 650

Le Mont-Dore is one of the most important centres for tourists. In addition to the regular service which runs twice daily to St-Nectaire and connects with the Paris-Orléans line, there are motor-car services during the season to Clermont-Ferrand, Royat, Vichy. Château de Murols, Besse, Le Lioran, etc.

The Queureilh Falls.

SEASON 15th MAY
TO 1st OCTOBER

MEANS OF ACCESS
BY TRAIN

Paris-Orléans Railway

Length of journey from :

Paris	9 hours.
Havre	12 —
Bordeaux	10 —
Marseilles	14 —
Brest	17 —
London	17 —
Madrid	29 —
Lisbon	28 —
Brussels	13 —

Through carriages.
Dining cars.
Sleeping-cars.

MONT-DORE AS A SPA

SITUATION. — Mont-Dore is a terminus on the Paris-Orleans line. It is a high-lying spa situated in the heart of the mountains at the foot of the Sancy, 6.175 ft. It lies in a beautiful valley not far from the source of the Dordogne among beech and pine-woods.
The population of the town is 2.000 ; about 20.000 persons visit it in the course of the summer.

CLIMATE. — The valley of Mont-Dore is enclosed by mountains, the altitude of which varies from 4.265 to 6.175 ft. They are easy of ascent and offer facilities for a graduated open-air treatment.

The climate is magnificent. The brilliance of the sky, the intensity of the sunshine, the purity of the air, strongly impregnated with ozone, and the marked radio-active quality due to the release of rare gases at the sources of the springs, all combine to render the climate of Mont-Dore unique. Although primarily its effects are slightly stimulating, it exercises a secondary sedative action upon the nervous system.

Hay fever cases do best in May and June.

PUBLIC HEALTH. — There is an office of public health and Mont-Dore is a departmental disinfecting station. The drinking-water is abundant and absolutely pure. Sanitation is on the sewer system. Street and house refuse is removed in covered carts. Slaughter-house with inspection of meat by a veterinary.

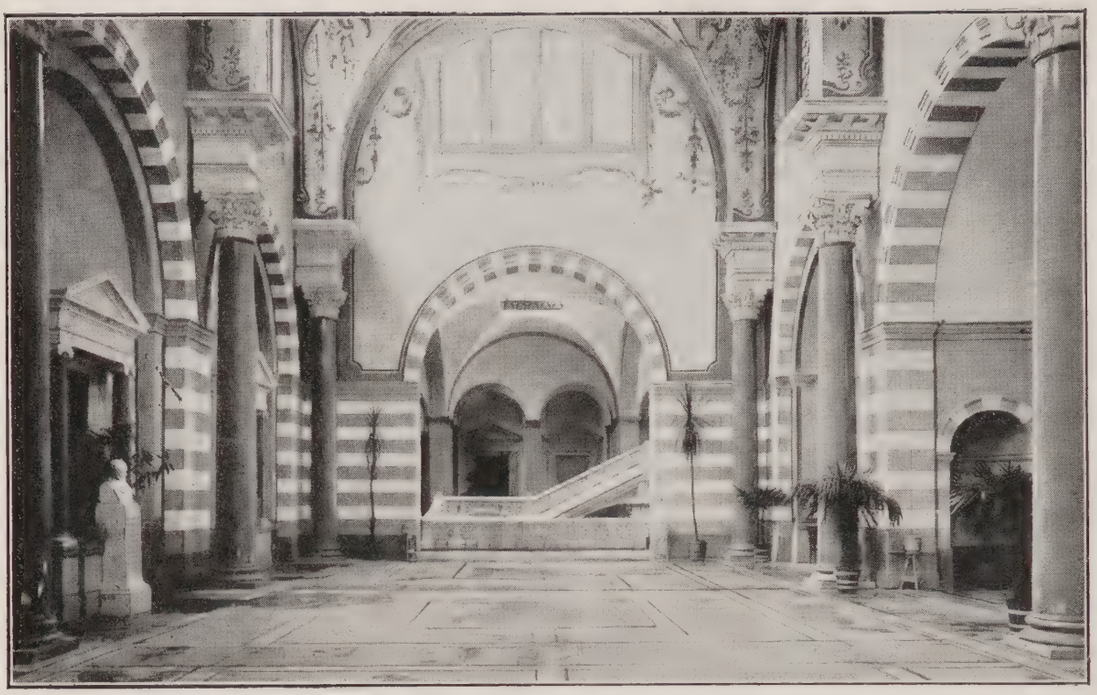
Thermal and Military hospital.

THE SPRINGS AND BATHING ESTABLISHMENT. — The springs are twelve in number and the bathing establishment is built directly over the trachite fissures in which they take their rise. Thus the waters are employed at the source, with no loss of their gaseous contents or of their electric and radio-active properties ; they are in fact " living waters ". The springs are further protected against possible atmospheric contamination by glass enclosures. The yield is 900.000 litres in twenty-four hours.

The favourite springs for internal employment are : *The Madeleine*, 113° F. ; the *Des Chanteurs* or *Bardon*, 115°7 F. ; the *César*, 113° F. and the *Ramon*, 107°6 F. which contains a considerable proportion of iron.

In different category to the true Mont-Dore springs but associated with them for the sake of convenience, is the *Source Félix*, about 3 kilometres from Mont-Dore. It contains chlorides and lithia and has a considerable success in the management of urinary gravel.

The balneo-therapeutic installation is housed in two large modern buildings. In addition to two *inhalation rooms*, which occupy 2.400 square metres and are unique in character, there are hot immersion baths in running water (100°4 to 113° F.) which are a speciality of Mont-Dore, and an armamentarium of appliances for general hydrotherapeutic purposes.



The Hall of the Bathing Establishment.

THE WATERS

CHEMICAL COMPOSITION. — The Mont-Dore waters are primarily *aerated* waters ; they contain mixed *bicarbonates, iron, arsenic* and a large proportion of *silica*. The total mineralization varies from 2 to 3 grammes, according to the spring.

The gases given off by the waters are carbonic acid, 99,50 % ; nitrogen, 0,49 % ; argon and helium, 0,01 %.

PHYSIOLOGICAL ACTIVITY AND METHODS OF TREATMENT. — The physiological activity of the Mont-Dore waters is best appreciated by consideration of the different methods of application. There are three principal methods :

1. *By the mouth.* — The internal method is one of great importance and is able in many instances to afford relief without other treatment. By increasing the secretion of hydrochloric acid it has a favourable action upon the alimentary canal. It is slightly diuretic and promotes the regular discharge of large quantities of urates. It is diaphoretic and, by calming asthmatic dyspnoea, it exercises a sedative effect upon the central nervous system.

Even more marked are the effects upon the respiratory organs. It liquifies and diminishes the secretions in the same manner as the balsams. In diabetes it has a very definite and constant action in reducing the percentage of sugar in the urine. Speaking broadly, the method may be classed as a specific in gout of the respiratory organs.

2. *Thermal Hip-baths.* — This method is practically unknown at other spas. The body, from the waist downwards, is bathed in the running water at the actual source, before the spring has lost its native properties, thermal, radio-active, electric, etc. The effect is that of a vast cupping-glass applied to the lower half of the body. It has a derivative action upon the respiratory organs and it actively reduces the local congestion. The most marked effect, however, is the powerful modification which it brings about in the nutritional exchanges.

3. *Inhalation.* — The medicinal vapours are inhaled in large halls at a temperature of 82°4 to 86° F., while the patients are walking about and are in full employment of their organic functions. In addition to a large proportion of the thermal gases, these vapours contain perceptible and even measurable quantities of silica, iron and arsenic. The effects are actively resolvent and sedative ; congestion is reduced.

These methods, specific to Mont-Dore, are reinforced by other secondary measures. Such are : temperate baths, aerated baths, gargles, *gaseous nasal douches*. In the latter, the gases set free from the thermal waters at their source are employed. The method is anaesthetic and constrictive in its effects and is particularly successful in spasmodic and vaso-motor affections of the pituitary membrane.

Besides the strictly thermal treatment obtainable, courses of *respiratory gymnastics and training* are given in the Establishment itself.

From the fore-going, it is evident that *the treatment at Mont-Dore is strongly indicated in gout of the respiratory organs*. And it should be borne in mind that the altitude, that important climatic factor, tends not only to stimulate the general nutrition, but that it has a direct and permanent action in improving the respiratory function.

EXPORT OF WATERS. — Waters from the Madeleine, César, des Chanteurs and Ramon springs are exported, as well as the pectoral paste prepared with the Madeleine water

In the Valley

CLINICAL INDICATIONS

PRINCIPAL INDICATIONS. — The most important of the indications is undoubtedly *asthma*, both dry and with oedema. In either case the condition is either very much improved or definitely cured, and it is this fact which has earned for the spa the name of " The asthmatics Providence ".

Emphysema yields to treatment, the bronchial attacks gradually becoming weaker.

The sequelae of infectious pneumonia or broncho-pneumonia, whether pneumo-coccal origin or as complications of influenza, whooping-cough or measles, with or without symptoms of tracheo-bronchial glandular disease. *Pleural adulterations* resulting from infectious processes, with or without adhesions.

Tracheo-bronchitis, both catarrhal and the congestive form so frequently observed in neuro-arthritic patients ; dry catarrh complicated with erratic or relapsing pulmonary congestion.

Rhino-pharyngitis, the *spasmodic coryza* known as " hay-fever " which may be periodic or aperiodic in character and invariably makes its appearance in the spring.

Adenoid growths, affections of the larynx, simple laryngitis, relapsing or chronic, relaxed laryngeal conditions so common in professors, clergymen, orators, singers, actors, nervous affections of the larynx, especially spasmodic cough.

Mont-Dore is peculiarly a *children's spa*. The treatment is particularly indicated in the case, even of infants, where tracheo-bronchitis, intermittent tracheo-bronchial, glandular disease, broncho-pneumonia following *influenza, measles*, or *whooping-cough* are present. It is equally efficient in *asthma*.

The Mont-Dore method is singularly successful in the management of respiratory troubles resulting from the use of *poison gases*.

SECONDARY INDICATIONS. — Rheumatic affections of the joints, certain algias (sciatic, intercostal), eczema, diabetes. These are all indicated and particularly so where they alternate or coincide with respiratory manifestations.

The chief indications for treatment at Mont-Dore may be briefly summarised as follows : *Congestive* and *spasmodic affections* of the *respiratory tract* as accompaniments of neuro-arthritic conditions.

CONTRA-INDICATIONS. — Cardiac conditions with broken compensation, arterial lesions, affections of the liver and kidneys, declared and threatening phthisis.

A moderate arterial hypertension is not a contra-indication to the Mont-Dore cure.

MEDICAL MEN. — Drs. André, Beal, Blanc, Bouchon, Castelnau, Claude, Debidour, Dullin, Galup, Garcin, Guérin de Sossiondo, Levadoux, Mascarel, Moncorgé, Perpère, Robert, Schlemmer, Serre, Tardif, Teillot, Trapenard.

General view.

LIFE AT MONT-DORE

The season at Mont-Dore begins about the third week in May. Visitors, including children arrive in crowds, artists, orators, lawyers, members of every profession which depends upon the use of the voice, many of them of European reputation.

The morning is generally devoted to treatment, inhalation, baths, douches, etc.

The afternoon has many distractions to offer. There are charming walks in the environs of Mont-Dore. A quarter-of-an-hour in the funicular railways takes one to the *Salon du Capucin* situated at an altitude of 4.220 ft. in a clearing by the pine forest. It has a restaurant, a dairy and various amusements (tennis, croquet, bowls, skating), and is an ideal spot for rest in the open air. At five o'clock patients resort to the bathing establishment for the evening glass of water and for secondary treatment (gas inhalation, foot-baths, etc.).

MOUNTAIN EXCURSIONS. — Excursions may be made on foot by good paths through the forests, or with mules, on horse-back by carriage or car. There are numerous cascades, mountain lakes, etc. in the neighbourhood. The ruined Château de Murols is remarkably picturesque and offers a magnificent view.

The mountains surrounding Mont-Doré are easy for ascent and free from danger. Mules or horses may be used. From the summit of the Pic du Sancy, 6.175 ft., the Alps are seen. Numerous more important climbs may be taken among the Monts d'Auvergne.

SPORTING ATTRACTIONS. — *The Parc des Sports des Pradets* is fully equipped for all branches of physical training and culture with competent instructors and under the supervision of the doctors of the resort. The Tennis Club is a admirably situated with regulation courts for matches.

Pigeon-shooting. Trout-fishing in the many rivers and lakes. Golf at the foot of the Sancy at an altitude of 4.429 ft. Fox-hunting, etc.

From December to February Mont-Dore offers every facility for winter sports

MUSIC, etc. — The centre of social life is undoubtedly the casino. It has large glass-covered lounges giving on to the park, drawing-rooms, lecture, writing and card-rooms. There is a theatre where comedies and operettas are given alternately with cinema performances.

The band plays in the park of the Casino twice daily.

ACCOMMODATION. — There are 4 first-class hotels with hot and cold water, electric lighting, lifts, central heating, bath-rooms, etc. These have 1.000 bed-rooms of which 200 have bath-rooms attached.

There are 14 comfortable second-class hotels with 1.200 bed-rooms ; 28 more modest third-class hotels with 1.900 bed-rooms.

160 furnished houses, villas and apartments are obtainable, all perfectly hygienic and to suit all conditions.

Enquiries concerning accommodation should be addressed to Le Syndicat des Hôteliers, Mont-Dore.

GENERAL INFORMATION. — For all that concerns the thermal treatment application should be made to either La Compagnie Fermière de l'Etablissement Thermal du Mont-Dore, 9, rue Auber, Paris (IXe) ; or to L'Etablissement Thermal, Mont-Dore.

Details concerning a visit should be obtained from Le Syndicat d'Initiative, Mont-Dore.

PLOMBIÈRES-LES-BAINS

(VOSGES)

VERY HOT SPRINGS, RADIO-ACTIVE, ALCALINE CONTAINING SODIUM SILICATE AND ARSENIC

SEASON
15th MAI
TO 1st OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 359
Calais	— 633
Dieppe	— 547
Havre	— 563
Cherbourg	— 702
Nantes	— 647
Bordeaux	— 770

The Faymont Cascade.

SEASON
15th MAY
TO 1st OCTOBER

MEANS OF ACCESS
BY RAIL

Est Railway.
Length of journey from :

Paris	7 hours.
Calais	10 h. 30.
Dieppe	10 hours
Havre	10 h. 30
Cherbourg	14 hours
Nantes	17 —
Bordeaux	15 —

PLOMBIÈRES AS A SPA

SITUATION. — Plombières is situated in the south of the department of Vosges, in the pleasant valley of Eaugronne at an altitude of 2.330 ft.

CLIMATE. — The climate is healthy and temperate and particularly sedative ; at the same time, on account of the topography and altitude, it is often chilly in the morning and evening especially at the beginning and the end of the season so that patients are obliged to take certain precautions.

URBAN SANITATION. — Complete canalisation of excellent drinking water protected from all possible contamination. Drainage system.

THE SPRINGS AND BATHING ESTABLISHMENT. — 27 springs yield 750.000 litres of water per diem. Their temperature varies from 55°4 to 165°2 F. The waters are clear, odourless and tasteless

The springs of Plombières are divided into two categories : 1. The hot springs 104° to 165°2 F.; 2. The temperate or saponaceous springs, 55°4 to 104° F. This wide variation in the temperature of the springs is one of the advantages of the resort.

The wells supply seven establishments :

Three first-class : *Les Nouveaux Thermes, Le Bain Stanislas* and *Le Bain Romain.*

Two second-class : *Le Bain des Dames* and *Le Bain National.*

Two third-class : *Le Bain tempéré* and *Le Bain des Capucins.*

The fees for treatment vary according to the class of the establishment.

Treatment by ingestion is carried out at the following springs : Les Dames, 125°6 F. ; Le Crucifix, 109°4 F. ; Savonneuse, 77° F. and Alliot, 55°4 F.

Bathing Establishment and Principal hotels.

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — The mineralisation of the waters is dil, 0 grm. 13 to 0 grm. 30 of the principal mineral salts per litre. The Crucifix spring, for example contains : bicarbonate of soda (0 grm. 020) ; of potash (0 grm. 002) ; of lime (0 grm. 036) of magnesium, sulfate of soda (0 grm. 106) ; silicate of soda (0 grm. 106) ; traces of arsenic free carbonic acid, oxygen and nitrogen. In the main, the waters contain alkaline, sulphu-sodium silicate and arsenic. But their chief characteristic is their *radio-activity* prove by Curie and Laborde, and later by Brochet. Plombières is in the front rank of French mineral waters.

PHYSIOLOGICAL ACTION AND TREATMENT. — The action of the waters of Plombières may be summed up in this formula : *Sedative to the nervous system, anti-arthritic and regulating the gastro-intestinal functions.*

The cure consists for the most part in the application of sedative measures, and the *sedation* of the entire system, procured by the Plombières waters, is the most important asset. They allay phenomena of pain and erethism and ameliorate nervous breakdowns.

These soothing and calming properties are especially marked in their action on disorders of the digestive system, intestines and stomach. The baths cause a diminution of the total acidity of the gastric secretion both of free and combined hydrochloric acid.

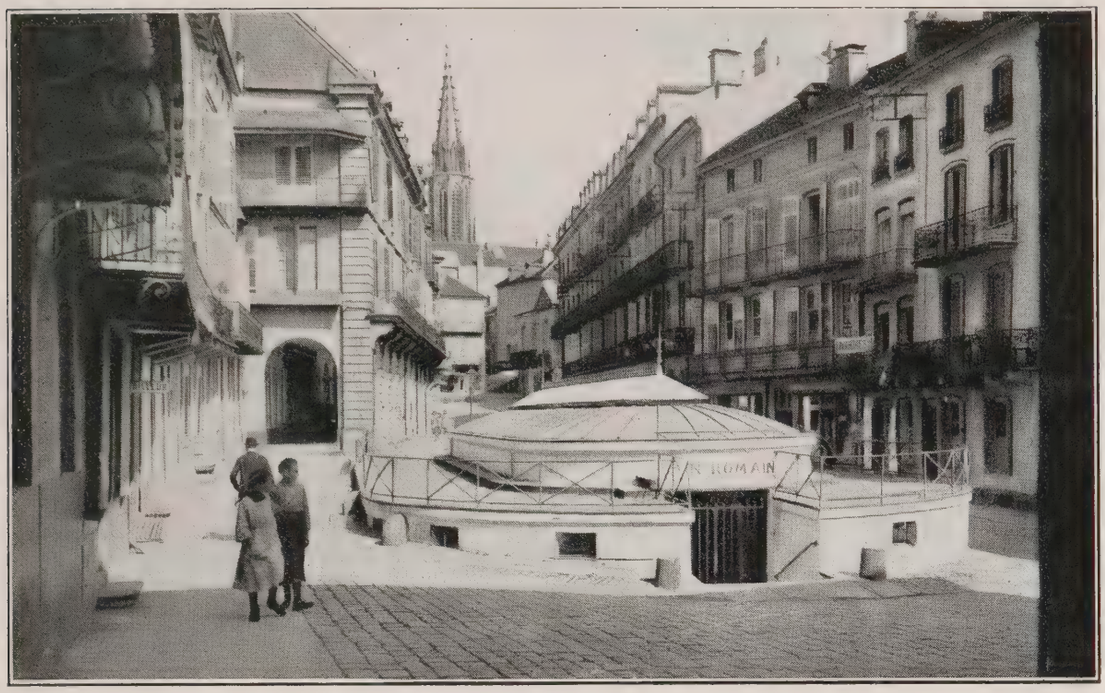
The waters of Plombières have anti-rheumatismal properties ; a discharge of uric acid is generally observed during the treatment. The gastrointestinal functions, the nutrition and neuro-arthritic conditions seem to be due to an action of the waters on the sympathetic nervous system and on the abdominal sympathetic in particular.

The waters are chiefly used for ingestion and as baths, douches, intestinal and vaginal douches, vapour baths and inhalations. Tepid baths, 91°4 to 96°8 F. form the typical medication of Plombières.

All varieties of under-water douches may be prescribed.

The abdominal under-water douche is one of the specialities of Plombières.

The high temperature vapour baths are fed by the vapours escaping from the hot springs. They may either be general or local. The intestinal douche is also one of the important therapeutic resources of the resort.



Roman bath.

CLINICAL INDICATIONS

PRINCIPAL THERAPEUTIC INDICATIONS. — The following diseases are treated at Plombières :

1. *Intestinal conditions.* The Plombières waters have an elective action on the intestine.

First, *Muco-membraneous entero-colitis.* The symptoms described by this name appear, to be associated with a functional disorder of the abdominal sympathetic and are eminently amenable to the Plombières cure : forms with constipation or spasmodic or painful diarrhoea, intestinal lithiasis, all forms of spasmodic constipation, tropical diarrhoea and dysentry.

2. *Dyspepsia.* The waters are especially suitable in dyspepsia of a hypersthenic type (hyperchlorhydria and hyperpepsia), painful dyspepsia accompanied by intestinal disorders.

3. *Rheumatismal conditions.* The high temperature of the Plombières springs and their special therapeutic properties make them very suitable for the treatment of rheumatism in all its forms : subacute, simple, chronic, fibrous, nodular, post-infectious, abarticular. Generally peaking, the neuropathic element is the determining factor in sending a rheumatic patient to Plombières.

4. *Women's diseases.* Especially painful forms : dysmenorrhoea, pelvic neuralgia, chronic metritis, ovaro-salpingitis.

5. *Diseases of the nervous system.* The sedative action is exercised in paralysis, neuralgia sciatic and intercostal), progressive muscular atrophy, polyneuritis, neurosis, hysteria, chorea, xophthalmic goitre, neurasthenia.

6. *Various conditions.* Pruriginous dermatitis, malaria (thanks to the arsenical principles in the waters), phlebitis, disorders of the respiratory passages.

CONTRA-INDICATIONS. — Acute diseases, cachexia, cancer.

The cure is contra-indicated for subjects requiring tonic treatment and all subjects who must avoid all cause of depression.

MEDICAL MEN. — Drs. Félix Bernard, Charmont, Decreton, Froussard, Gillot, Hagen, Hamaide, Jacquot, de Langenhagen, Pelthier, Pélissier, Truelle.

General view.

LIFE AT PLOMBIERES

As a rule the treatment is carried out during the forenoon and patients are generally prescribed a rest of half an hour to two hours after the bath.

Patients may spend the greater part of the afternoon in walking unless their condition necessitates rest in bed or outside in a lounge chair.

Plombières, situated at the base of the Vosges in most charming undulating country, offers numerous and varied walks for its visitors. The most attractive, perhaps, are the park, which is one of the finest to be seen at any spa, the Feuillées, the Val d'Ajol, and the Faymont and Géhard waterfalls.

La Schlucht, the Ballon d'Alsace, Bussang, Gérardmer may be the objects of delightful short drives. Long excursions make it possible to visit Alsace.

Motor coach service

Concerts at the Casino thrice daily.

Theatrical performances four times weekly, classical concerts, balls, pigeon shooting

ACCOMMODATION. — 2 first-class hotels ; hot and cold water, electric light, central heating, bath-rooms. 200 bed-rooms, 15 with private bath-rooms.

5 second-class hotels, comfortable, hot and cold water ; 350 bed-rooms.

13 third-class hotels, more modest. 500 bed-rooms.

100 furnished houses, villas and apartments at all prices with good sanitation.

Special menus and diet arranged for in all the hotels.

GENERAL INFORMATION. — For information regarding the cure, bathing establishment fees, exportation of mineral waters, apply to the Compagnie des Thermes, Plombières-les-Bains (Vosges).

For information regarding accommodation, etc., apply to the Syndicat d'Initiative de Plombières (Vosges)

ROYAT-LES-BAINS

(PUY-DE-DOME)

WARM ALKALINE SPRINGS CONTAINING ARSENIC, MIXED BICARBONATES, CHLORIDE AND A HIGH PERCENTAGE OF CARBONIC ACID

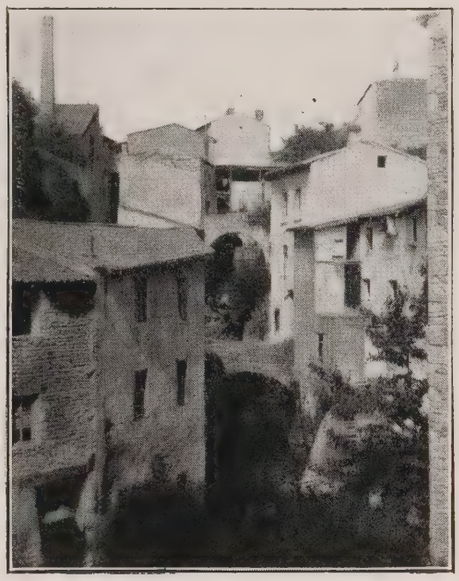
SEASON
1st MAY
TO 15th OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 388
Havre	— 615
Bordeaux	— 374
Calais	— 652
Dieppe	— 545
Nantes	— 458
Marseilles	— 449

Motor coach service.
Auvergne spas circuit.



Old houses.

SEASON
1st MAY
TO 15th OCTOBER

MEANS OF ACCESS
BY RAIL

Length of journey from :

Paris	6 hours.
Havre	15 —
Bordeaux	12 —
Calais	13 h. 30.
Dieppe	13 hours.
Nantes	20 —
Marseilles	16 —

P.-L.-M. and P.-O.
Railways.

ROYAT AS A SPA

SITUATION. — Royat is situated in the Auvergne at a distance of 2 1/2 kilometres from Clermont-Ferrand above which it lies.
The Royat Spa, quite distinct from the village of Royat, is placed at the commencement of the valley which runs down from the Dôme range and opens on the Limagne. Altitude : 1.460 to 1.545 ft.

CLIMATE. — The climate is temperate and the air laden with ozone, very pure and bracing. The temperature is always freshened in summer by the north wind blowing from the Monts Dômes. In the vicinity are vineyards, forests, chestnut and pine. The soil is volcanic, very permeable and always dry. The place is free from moisture and fog.

THE SPRINGS AND BATHING ESTABLISHMENT. — The springs are five in number, four of them are warm, having a temperature from 68° to 95° F. and one, weakly mineralised, cold and not aerated, being a true type of lavage water.

Total yield : 2 million litres in 24 hours.

Gas evolved : more than 2 million litres of carbonic acid gas, this representing 99/100 of the total yield of gas.

There are three bathing establishments :

The *Grand Establishment* is supplied by the Source Eugenie (94° F.), yielding ; 1.500.000 litres. Besides having complete warm water installations, it is furnished with carbonic acid gas baths of running water at its natural temperature. There are also installations for gargarism, inhalation, atomisation, douches and irrigations of all sorts, hydro-electric baths, hot air, light and vapour baths as well as massage.

The *Saint-Mart Establishment*, entirely rebuilt in 1912, is supplied by the Saint-Mart source (86° F.). The waters enter the baths straight from the spring. This source is well known as " La Fontaine des Goutteux ". The bathing establishment specialises in running water baths for the lower extremities and cold baths. Extremely rich in gas.

The *César Establishment* has apartments for carbonic acid gas baths, also very rich in gas.

The prices of treatment vary according to the Establishment.

General view of Clermont-Ferrand taken from Royat.

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — The waters of Royat are strongly impregnated with carbonic acid gas, they contain mixed carbonates, arsenic, chlorides, iron, calcium and lithium.

The principal spring, the *Eugénie* (95° F.) is typical. The strength of the dissolved salts is cuch that it could be directly injected into the veins.

The *Saint-Marc* spring (86° F.) contains 0,035 grm. of lithium per litre.

The *Saint-Victor* spring (68° F.) is a very similar composition to the blood plasma ; it contains calcium and iron and 0,0045 grm. of arsenate of soda per litre.

The *Cesar* spring (82°4 F) is less mineralised and is especially suitable as a table water for dyspeptics.

The *Velléda* spring is cold, non carbonic, very weakly mineralised (0 gr. 127 per litre), of crystal clearness ; it is an ideal water for lavage, highly radioactiol.

PHYSIOLOGICAL ACTION AND TREATMENT. — The action of the Royat waters varies according to their application.

1. *Baths.* — They act through the free carbonic acid gas ; they modify the arterial pressure and definitely reduce tension, tone up the heart, slow the pulse, augment the amplitude of the beat and diminish the size of the heart when it is dilated.

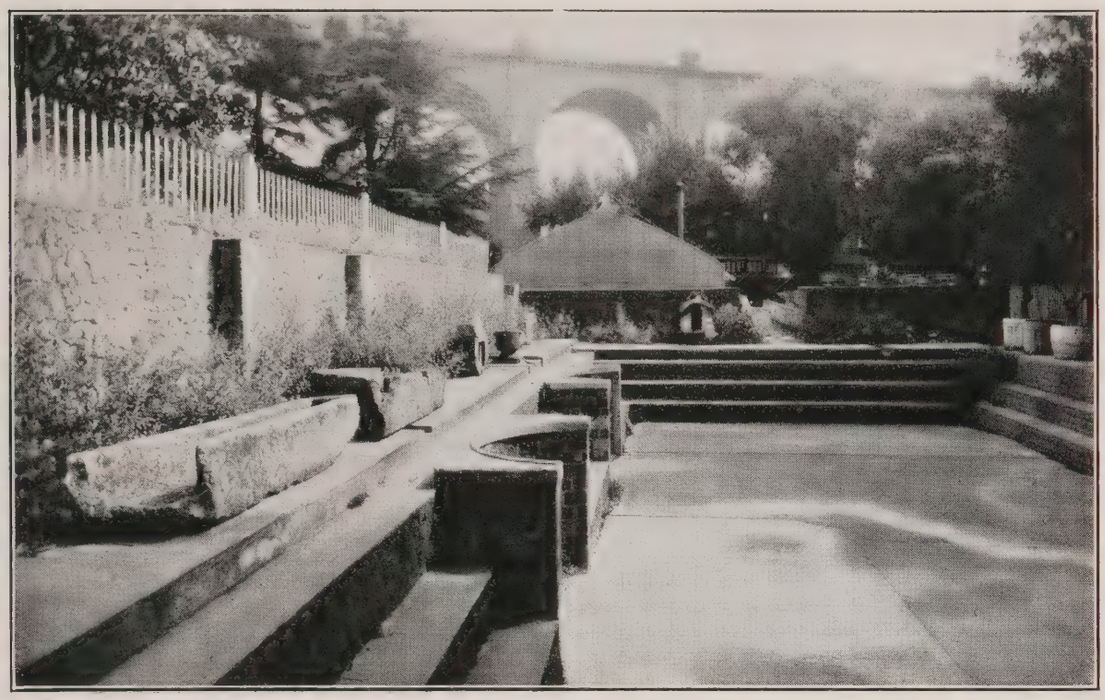
These different actions are obtained according to the manner, the duration, temperature and nature of the baths and the condition of the patient, the cold baths, highly aerated, increase the blood pressure.

The carbonic acid gas bath is the speciality of the Royat treatment ; it may be administered in various ways.

2. *Imbibition.* — The waters are stimulating, diuretic, dissolvent, strengthening, increase the calcium content of the blood and renew its salts, according to the spring.

3. *Inhalation.* — They have a favourable action on the respiratory system ; reduce congestion and always alleviate and cure catarrh, bronchitis, asthma, emphysema, etc

ROYAT-LES-BAINS



The Roman Baths.

CLINICAL INDICATIONS

THERAPEUTIC INDICATIONS. — *Essential indications :* 1. All diseases and disorders of the heart and the *circulation and notably arterio-sclerosis* are specially amenable to the Royat treatment.

In regard to this, Royat is unique and has very specialised installations, as well as physicians skilled in the treatment of diseases of the circulatory system by means of carbon-dioxide baths.

All maladies of the cardio-vascular system, high arterial blood pressure, vascular disease and dilatation of the aorta. Functional heart troubles, with or without an actual lesion ; palpitation, tachycardia, all true cardiopathies, no matter the cause or the nature of the lesions.

Secondary indications : 2. All forms of *arthritism*, gout, chronic rheumatism, dyspepsia cutaneous manifestations, such as eczema, psoriasis and acne, diabetes, etc.

3. Anaemia and chlorosis.

4. All *chronic respiratory diseases*, bronchitis, catarrh, asthma, emphysema, etc.

CONTRA-INDICATIONS. — Carbon dioxide balneotherapy is contra-indicated in cases of cardiopathy with periods of serious asystole, advanced œdema, uraemic dyspepsia, permanent cardiac insufficiency and renal impermeability.

GENERAL INFORMATION. — For information concerning the cure at this spa and the tariffs of the bathing establishment, apply either at Paris to the office of Compagnie des Eaux, 1, rue Auber, place de l'Opéra, or at Royat.

For other information, apply to the Syndicat d'Initiative d'Auvergne, at Clermont-Ferrand.

MEDICAL MEN. — Drs. Barrieu, Berthier, Brandt (Egerton), Chassagnard, Dimoyat, Fouriaux, Haranchipy, Heitz (Jean), Janot, de Kervily, Mougeot, Perrin (Georges), Perrin (Gabriel), Petit (Paul), Ribeyre, Richard, Rocher, Romeuf, Verny.

The Church.

LIFE AT ROYAT

The attractions of Royat are in no way inferior to the treatment. The pa, situated 2 1/2 kilometres above Clermont-Ferrand, has a remarkable topographical situation from the tourist's point of view. A new excursion can be made daily for 25 days, either in the immediat vicinity of Royat or within a radius of 50 kilometres.

These vary from short walks around the resort, the old village, its peculiarly situated fortified church, the surrounding heights with their wide views over the Puy-de-Dome and the mountains or over the Limagne plain : the Bargoin park, with its century old trees, is only 12 minutes walk from the spa and can be reached in five minutes in public motors. The air is delicious at an altitude of 1.625 feet and the view is magnificent.

The district is rich in points of historical and natural interest : the extinct volcanoes of Auvergne, ancient castles, woods and lakes.

Excavations made during the 19th century have brought to light a number of archeological remains of great interest, forming the annals of Royat. There are three pools, one of which is restored ; vases, statues, a marble colonnade, sarcophagi, etc., proved to be authentic by the references to Vercingetorix and Gergovia, and the remains of the temples of Vasso and Mercury at the top of the Puy-de-Dome.

The park of the spa is a delightful spot for those invalids who wish to avoid long walks.

It is shady and beautified by the torrent of Tiretaine which divides it into two parts. It is here that are situated the Casino and the theatre (which accommodates 800 persons) where various entertainments are produced. There is an orchestra, carnivals of all kinds and gaming tables.

The tennis courts are laid out along the banks of the Tiretaine.

ACCOMMODATION. — 2 first-class hotels ; hot and cold water ; electric light ; central heating ; bath-rooms. 400 bed-rooms, 200 with private bath-rooms.

12 second-class hotels, comfortable. 1.000 bed-rooms.

10 third-class hotels, less pretentious. 200 bed-rooms.

30 furnished houses, villas and pleasant apartments to suit all requirements.

MEANS OF ACCESS. — The through journey from Paris to Royat by the P.-L.-M. day and night expresses, occupies 6 hours only. Regular services of motor-cars.

SAINT-NECTAIRE

(PUY-DE-DOME)

WARM GASEOUS WATERS
CONTAINING SEVERAL BICARBONATES
LITHIUM AND ARSENIC

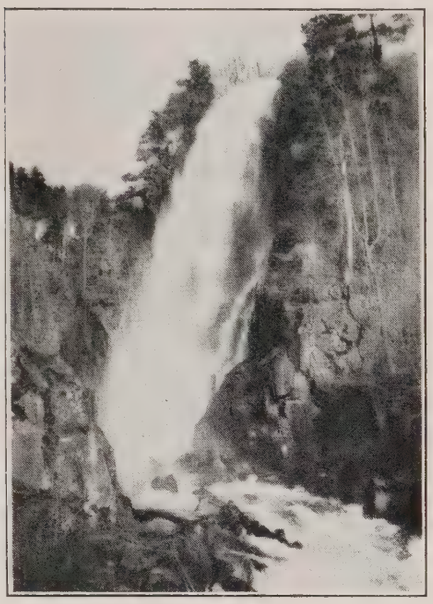
SEASON
15th MAY
TO 15th OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 410
Bordeaux	— 363
Calais	— 688
Dieppe	— 584
Havre	— 595
Nantes	— 488

Motor service between Clermont-Ferrand and Issoire (P.-L.-M.) and Saint-Nectaire. Also between Mont-Dore (P.-O.) and Saint-Nectaire.



The "Granges" Waterfall.

SEASON
15th MAY
TO 15th OCTOBER

MEANS OF ACCESS
BY TRAIN

Length of journey from :

Paris	11 hours.
Bordeaux	13 —
Calais	14 h. 30.
Dieppe	14 hours.
Havre	14 h.30.
Cherbourg	19 hours.
Nantes	20 h. 30.

P.-O. and P.-L.-M.
Railways.

SAINT-NECTAIRE AS A SPA

SITUATION. — The charming verdant spa, Saint-Nectaire, lies on the bordes of the fertile Limagne country, on the wooded slopes of the mountains forming the eastern extremity of the Monts Dore, and is washed by the Courançon, a tributary of the Couze-Chambon.

Owing to its altitude 2.340 ft., Saint-Nectaire is an ideal hill station where its admirers can remain from early spring till autumn.

1.200 inhabitants. 3.000 visitors.

CLIMATE. — The valley in which Saint-Nectaire lies runs north and south and is protected from the north and south winds by the Mont Cornadore and the Puy d'Eraigne. The climate is temperate, the air dry, pure, the permeability of the soil assures the quick absorption of rain and makes the town particularly healthy and pleasant. It is necessary to have warm clothing for early morning. Mean temperature in summer : 60° F.

LENGTH OF SEASON. — The season opens on May 15th and closes on October 15th Patients who are able to take their cure during June or September would do well to avoid the July and August crowds. They will have greater care and more advantageous conditions.

URBAN SANITATION. — Perfect. The drinking water comes from one of the purest and most copious springs in the district and has marked alimentary qualities. Complete drainage system. Street cleaning and watering superintended by the Syndicat d'Initiative. Electric lighting.

The principal Bathing Establishment.

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — The temperature of the mineral springs varies from 53° to 130°8 F, the mineralisation from 4 to 8 grammes per litre. The Saint-Nectaire waters present, according to the celebrated Gubler, a type of " mineral lymph ". As a matter of fact, they contain, per litre, the same mineral principles as a litre of serum.

THE SPRINGS AND BATHING ESTABLISHMENT. — About 40 springs, 18 of which are prescribed daily, their temperature varies from 47°5 to 132°4 F. Their yield is about 7.000 cubic metres.

Principal groups : 1. Those of Mont Cornadore, including *Mont-Cornadore, Parc, Rocher, Morange* ; 2. Those of Saint-Cézaire, *Saint-Cézaire, Boette, Rouge, André, Sainte-Marie, Dames* ; 3. Those of the Gros Bouillon, the *Gros-Bouillon, Coquille.*

Each of the groups has a bathing establishment : The *Mont-Cornadore* establishment (first and second-class). The *Thermes* (first and second-class), and the *Roman Baths* (first class).

They three all supply the famous *Saint-Nectaire lumbar affusions.* Prices vary according to the class and the season.

PHYSIOLOGICAL ACTION OF THE WATERS. — They vary according to the means employed. In a general way, the ingested waters stimulate the digestive secretions, the circulation (reabsorption of extravasations and oedemas), renew the activity of the blood corpuscles, the nitrogenous changes, also the activity of the renal functions and in this way they diminish or suppress albuminuria.

Bathing relaxes the circulation and relieves vascular spasm.

The lumbar affusions and hot hip baths are powerfully decongestive for the kidneys and relieve lumbago and sciatica.

Druid's Stone.

CLINICAL INDICATIONS

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. All forms of albuminuria whatever the origin, infectious or toxic : scarlatinal influenza and rubeolic albuminuria, etc.

2. Albuminuria of pregnancy.

3. Albuminuria of adolescence (orthrostatic, intermittent).

4. Constitutional albuminuria (associated with indigestion, anaemia, phosphaturia, diabetes, arthritis, etc.).

5. Cardio-renal intoxication (uraemia with or without hypertension).

The indication becomes even more exact when these different renal manifestations are accompanied by digestive insufficiency, anaemia, general weakness, nervous depression, troubles of adolescence.

The cure has excellent effects in cases of residual or superficial nephritis and in all cases of mixed and diffuse nephritis.

Certain diseases of women are also treated, like leucorrhoea, torpid metritis, inflammation of the uterus and adnexa.

CONTRA-INDICATIONS. — These are express contra-indications to the cure at Saint-Nectaire : marked arterial tension, advanced cardio-sclerosis, myocarditis, advanced nephritis and all forms of pulmonary tuberculosis.

THERAPEUTIC APPLICATIONS. — The waters are used for drinking and also for carbon-dioxide baths with running water, 93°8 to 100° F., underwater douches, lumbar affusions or Saint-Nectaire douches, 94°7 to 121°8 F., vaginal douches in the bath, atomisation, shower baths, etc.

EDICAL MEN. — Drs. Porge, Roux, Serane, Siguret, Versepuy.

Panoramic view of Saint-Nectaire-le-Haut.

LIFE AT SAINT-NECTAIRE

AMUSEMENTS. — Places of interest : the church (historical), masterpiece of Roman art in the Auvergne, the 15th century cross. The Mont Cornadore grottos, the petrifying fountains, the Dolmen and megalithic city.

Concerts in the park, casino, theatre ; gaming-rooms, cinema, guignol, shooting, tennis.

Numerous mountain walks, fishing, (crayfish, trout), boating on the wonderful Chambon lake at an altitude of 2.925 ft.

Saddle donkeys, donkey carriages, rubber-wheeled carriages, motor and motor coaches, are available for excursions.

PRINCIPAL WALKS AND EXCURSIONS. — Puy d'Eraigne and Mazèvre, extensive views, the Grange Gorges and waterfall (3 kil.), hydro-electric power station. Verrière (3 kil.). Murols (4 kil.). Montaigut (9 kil.). Prehistoric grottos of Chateauneuf (about 1 mile from Boissière), Rajah (5 kil.), and Jonas (8 kil.). Chambon lake (9 kil.), the largest in Auvergne and Pavin (25 kil.), the deepest. Notre-Dame de Vassivière (27 kil.), pastoral pilgrimage. The Gorges de Courgoul (15 kil.). The valleys of Chaudefour, Surin and Valbaleix.

ACCOMMODATION. — 3 first-class hotels, electric light, lift, bath-rooms ; 220 bed-rooms.

4 comfortable second-class hotels ; 250 bed-rooms.

3 third-class hotels ; 100 bed-rooms.

About 20 houses and villas, apartments at all prices.

For information apply to the Syndicat d'Initiative or the Société des Eaux Thermales.

GENERAL INFORMATION. — Apply to the Syndicat d'Initiative and the Director des Eaux Thermales of Saint-Nectaire, 47, rue Joubert, Paris (Tél. Gutenberg 15-12, Central 26-26).

URIAGE

(ISÈRE)

TONIC SULPHUR WATERS CONTAINING SODIUM CHLORIDE

(Altitude : 1.358 ft. ; the immediate surroundings attain an altitude of 5.905 ft.)

SEASON
25th MAY
TO 5th OCTOBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 585
Calais.	— 832
Dieppe	— 759
Havre.	— 773
Grenoble	— 12
Bordeaux	— 663

Motor-car service. — Booking-office and information at the garage of the bathing establishment. There is a motor-car service into the Dauphiny Alps, the Briançon Alps and Le Oueyras.

Motor-cars and electric trains run between Uriage and Grenoble (12 kilom.).

The Castle.

SEASON
25th MAY
TO 5th OCTOBER

MEANS OF ACCESS
BY TRAIN

Length of journey from :

Paris	12 hours
Calais	16 —
Dieppe.	15 —
Havre	15 —
Nantes.	15 —
Bordeaux	10 —
Marseilles	7 —
Brussels	16 —

Through service by the P.-L.-M. from Paris to Grenoble. Sleeping-cars.

URIAGE AS A SPA

SITUATION. — Uriage is situated in the Dauphiny, in the department of Isère ; it occupies one of the most beautiful sites in the French Alps. The spa has grown up round the sulphur spring and there is practically no urban population. It is the resort of between eight and ten thousand visitors annually.

CLIMATE. — The Valley, which is exceptionally charming, faces the south-west. It is surrounded by wooded heights which protect it from winds and render the atmosphere calm and peaceful. Owing to its forest surroundings and the alluvial nature of the soil, the climate, even in the height of the summer, is always temperate and its sedative properties are remarkable.

The beginning and the end of the season (June and September) are particularly favourable in the case of delicate and exhausted patients who require a reposeful environment. Moreover, the bathing establishment is less crowded at those periods and the hotel prices are more moderate.

PUBLIC HEALTH. — The drinking water is obtained from springs in the mountains and is exceptionally abundant. It contains very little lime which renders it soft to use and of an agreeable flavour.

Sanitation is conducted upon the sewer system and also by bacterial tanks.

The highways and house-refuse services are particularly efficient. There is adequate provision during the whole of the season for the removal and destruction of house-refuse and the sweeping and watering of roads. There are disinfecting rooms, an office of public health, a thermal hospital and baths for the poor. Lighting, both public and private, is by electricity.

THE SPRINGS AND BATHING ESTABLISHMENT. — The most important of the Uriage springs has a regular yield of 4.000 hectolitres per day. It contains sulphur and sodium chloride and is highly tonic in character.

A second spring containing iron constitutes a valuable adjuvant to treatment.

The bathing establishment is modern and occupies 2.600 square metres. It is equipped with every modern hydrotherapeutic appliance and the service is excellent.

URIAGE

The Bathing Establishment

THE WATERS

CHEMICAL COMPOSITION. — 1. The principal chemical constituents of the iron spring are the bicarbonates of iron and calcium and the sulphates of calcium and magnesia.

2. The water of the sulphur spring has a constant temperature of 73°14 F. at the source. Its mineralization is 10 grm. 50, and is described as follows : sodium chloride, 6 grm. ; calcium, magnesium and sodium sulphates, 3 grm. 31. The natural tonic property of the water is its most salient feature and forms the basis of a large proportion of its therapeutic applications.

The second important characteristic of the Uriage water is its sulphur contents. Sulphur is present in the form of hydro-sulphuric acid (7 cc. 4) and it is possible that there is also a small proportion of sodium monosulphide.

The waters are extremely radio-active and the gases which are set free from them are radio-active to an even higher degree.

PHYSIOLOGICAL ACTIVITY. — The water is taken internally. Owing to the large amount of sodium chloride and alkaline sulphates which it contains, the water has an apperient action when taken in small doses. In large doses it is strongly purgative but does not provoke colic.

It stimulates the organic changes and is active in promoting diuresis. By reason of its saline and sulphur contents it is a powerful mineralizing agent and detoxicator.

Used externally it has a general tonic effect, while at the same time it has a specific stimulant action upon the skin and mucous membranes. The clinical results correspond with the methods of application.

METHODS OF EMPLOYMENT. — The water is taken by the mouth, it is used in baths and douches, especially douche-massage, sprays, needle and shower baths, nasal and retro-nasal douches, local baths and local douches, etc.

MEDICAL MEN. — Drs. Barbier, Bazin, Boutelier, Guillermond, Jourdanet, Larat, Maritoux, Teulon-Valio.

The Park and the Castle.

CLINICAL INDICATIONS

PRINCIPAL INDICATIONS. — The indications depend upon the sodium and sulphur contents of the waters. The clinical activity of these agents is reinforced by varied and efficient thermal methods.

1° *General.* — Debility in all its forms, whether congenital or acquired, is wonderfully influenced by the tonic properties of the waters. Particularly amenable are the debilitated and anaemic manifestations which accompany nervous disease ; neurasthenia ; overstrain of every description ; and convalescence.

2° *Diseases of children.* — Uriage is the spa par excellence for scrofulous children ; rickets, congenital syphilis, and glandular disease are all enormously benefitted by the treatment.

Those tracheo-bronchial glandular conditions, such as infantile asthma and recurring bronchitis, which are so common and so tenacious in lymphatic children, are particularly indicated.

Concurrently with the hydro-mineral cure children greatly benefit by the course of open-air gymnastics organised under the control of the thermal establishment.

3° *Skin diseases.* — Owing to the nature of their constituents, the internal and external exhibition of the Uriage waters is attended by marked results in the majority of skin diseases of constitutional origin. Such are eczema, impetigo, lichen, psoriasis, varieties of acné, urticaria, relapsing herpes, etc.

Syphilis in all its forms and at all stages is successfully managed by a mixed mercury and sulphur treatment.

A service of *dermatological physiotherapy* (radiotherapy, electrotherapy) attached to the thermal establishment renders the cure particularly effective.

4° *Affections of the naso-pharyngeal mucosa.* — The tonic, antiseptic and non-irritant properties of the Uriage waters render them peculiarly suited to the management of these conditions. Ozina and purulent rhinitis, naso-pharyngeal catarrh, enlarged tonsils, chronic pharyngitis, simple chronic coryza, asthma of nasal origin, adenoid growths, true asthma, hay fever are some of the conditions indicated.

General view.

LIFE AT URIAGE

AMUSEMENTS. — There is an attractive casino with theatre and cinema ; ball-rooms, card-rooms, concerts, etc.

Attached to the bathing establishment is an extensive park, where patients who are undergoing certain forms of treatment can take their walks without wandering too far from their hotel.

In this park there is a tennis club with numerous courts, and there is a golf links in the park belonging to the Hotel des Alberges.

The band plays in the park of the bathing establishment twice daily.

There are pleasant walks by zig-zag paths up the mountains and a considerable altitude may be reached in a comparatively short time and without undue fatigue. Such are the Promenades du Désert du Mûrier, de la Galochère, du Chemin des Gardes.

Excursions by car, carriage and with mules are numerous. Of these the chief are : Le Lautaret, 6.970 ft. ; La Meije, 13.080 ft. ; La Grave, La Grande-Chartreuse, Le Vercors, Le Trièves, the Glandou and the Croix de Fer passes, La Salette, the Lac Robert, the Cascade de l'Oursière, etc.

ACCOMMODATION. — There are numerous first-class hotels, with hot and cold water laid on in all the bed-rooms, bath-rooms, electric light, lifts, gardens, terraces, views of the Alps, etc.

There are numerous second-class hotels where families are taken en pension.

Villas, houses and furnished apartments are obtainable.

GENERAL INFORMATION. — Inquiries concerning indications and methods of treatment, the tariff of the bathing establishment and the export of waters should be addressed to La Direction de l'Etablissement Thermal d'Uriage, or to La Société de l'Etablissement Thermal d'Uriage, 55, rue Saint-Lazare, Paris.

All questions concerning accommodation should be referred to Le Syndicat d'Initiative de Saint-Martin d'Uriage.

VICHY

(ALLIER)

WARM SPRINGS WITH HIGH PERCENTAGE OF SODIUM BICARBONATE

(Altitude : 850 ft.)

SEASON
25th APRIL
TO 15th OCTOBER

MEANS OF ACCESS
BY ROAD

Distances in kilometres from :

Paris	Kms. 351
Calais	— 619
Havre	— 547
Dieppe	— 500
Cherbourg	— 636
Bordeaux	— 437
Marseilles	— 536
Nantes	— 477

Direct motor coach service between Vichy and all the central group of Spas. (Circuit of the watering places of Auvergne.)

The " Grande Grille ".

SEASON
25th APRIL
TO 15th OCTOBER

MEANS OF ACCESS
BY TRAIN

P.-L.-M. Railway.

Length of journey from :

Paris	6 hours.
Calais	12 —
Havre	12 —
Geneva	10 —
Strasbourg	12 h. 30.
Bordeaux	11 hours.
Marseilles	11 —
Lyons	4 —

Special service from Paris. One rapide and four express trains daily.

VICHY AS A SPA

SITUATION. — Vichy lies in the Bourbonnais on the right bank of the Allier, in a valley bounded on the east by the foot hills of the Madeleine mountains and on the west by the Auvergne mountains. It has 17.000 inhabitants. 108.963 visitors during the official season in 1913.

CLIMATE. — Mild and temperate, somewhat similar to the climate of Paris and that district.

Altitude : 850 ft. above sea level. The climate is preeminently sedative ; nervous subject find it restful and sleep-giving. Average temperature : 59° to 60°8 F. during June, July and August ; 48°2 F. and 52° F. in Spetember.

URBAN SANITATION. — Unlimited supply of excellent drinking water. Improved sanitary arrangements. Offices of sanitation superintending all public services and having a laboratory for the control of the water. Refuse destructor. Civil and military hospitals for hydrotherapy.

THE SPRINGS AND BATHING ESTABLISHMENT. — Fourteen springs : 675.000 litres per day.

The principal springs are : Chomel, 108°5 F. ; la Grande Grille, 106° F. ; l'Hopital, 91°4 F. ; Celestins, 60°8 F.

Several spa buildings, the largest and finest of which covers more than 7 acres of ground, and is considered to be the most perfectly arranged and most complete bathing establishment in the world. Besides large numbers of bath-rooms, there are most modern installations for physiotherapy so that all varieties of baths and douches can be given ; there is also complete apparatus for general and local application of the mineral waters, and the gases of these waters, also vapour baths, hot air baths, electricity mechanotherapy, X rays, etc.

General view of the great bathing Establishment.

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — The principal element in the Vichy waters is sodium bicarbonate. Their total mineralisation is 7 grm. 50 to 8 grm. 50 and according to the old chemical notation, 4 grammes to 5 grm. 50 of this is sodium bicarbonate. New methods of analysis describe the composition as sodium and carbonic acid free or combined; other minerals are found in smaller proportions : calcium, lithium, magnesium, lime, sulphur, phosphorus, potassium, iron, and arsenic, besides iodine, boron, rubidium and strontium ; gases : nitrogen, argon, crypton, xenon, helium, neon, and traces, dicovered by spectroscopic analysis, of aluminium, germanium, tungsten, etc.

This complex solution is at a high degree of ionisation ; it contains electro-negative colloids and has a moderate radio-activity.It is isotonic with blood serum and sterile at the spring-head so that it may be employed when necessary as a hypodermic injection.

PHYSIOLOGICAL AND THERAPEUTIC ACTION. — Taken fasting, the water washes the surface of the oesophagus and stomach, carries away the mucus and residues, it excites the gastric secretion ; its temperature and the anesthetic properties of the carbonic acid gas, act on the nerve endings and alleviate pyrosis and the pyloric spasm, and at the same time, its alkalinity partially neutralizes the acids of the gastric juice. Generally speaking, the intestinal functions are regulated after a few days of treatment, both in diarrhoea and constipation ; but the choice of spring is of importance in obtaining the result in different patients. The Vichy water has a very marked action on the liver ; under the influence of the treatment, the secretion of bile becomes more abundant and fluid (as can easily be proved in patients with biliary fistulae) ; at the same time, it removes any infectious germs which it may contain. The ureopoietic power of the liver is increased and the glycogen restored.

Enlarged congested liver diminishes in size. This, so to speak, specific action on the hepatic function explains the gratifying effects of Vichy water in numbers of local and especially general morbid conditions the origin of which is found to be a defective hepatic function, as in arthritism, gout, diabetes.

The diuresis increases with the cure and there is a discharge of uric acid. There is an increased activity in the reduction of the oxyhaemoglobin and a higher percentage of heamoglobin and red blood corpuscles. These actions have a favourable effect on the general nutrition increasing or decreasing the organic activity according as the previous condition was inferior or superior to the normal.

CLINICAL INDICATIONS

THERAPEUTIC INDICATIONS. — The diseases amenable to the Vichy cure are many and varied owing to the action of the treatment not only on the organs, especially the digestive organs, but also on organic and functional conditions bound together by circumstances common to both, by diathesis or vitiated nutrition, whether these conditions are hereditary or acquired.

The disorders most generally treated at Vichy are : *Gastric disorders :* various forms of dyspepsia, atonic and spasmodic, hyper and hypochlorhydria, gastritis, gastric dilatation, pyloric spasm, dyspepsia due to diathesic, nervous and toxinfectious conditions, or following hygienic errors, overeating or alcoholism.

Intestinal disorders, entero-colitis, constipation or diarrhoea, especially when they are associated with analogous diathesis or toxinfectious conditions.

Diseases of the liver. From congestion due to over-eating or drinking, or following infections like malaria, various forms of jaundice and cholangitis, to biliary, lithiasis in all stages, except during acute manifestations.

Visceral ptosis, enteroptosis, floating kidney.

Renal lithiasia in the early stages and certain forms of albuminuria.

Disorders of nutrition. Gouty diabetes, obesity, chronic rheumatism, migraine.

Sequelae of malaria, except acute attack and convalescence after various infections.

Certain forms of dermatosis associated with disorders of nutrition. Certain organic congestions, secondary and general conditions, cardiac troubles of gastro-hepatic origin.

Utero-ovarian congestion of the menopause, sterility associated with permanent acidity of the vaginal secretion.

Children with hereditary arthritic or hepatic conditions, cannot come to Vichy too early, especially when they are subject to periodical vomiting with acetonaemia.

Old people without cachexia benefit by the cure, if their condition of health indicates it, on condition that the treatment is under medical supervision and adapted to their degree of resistance.

CONTRA-INDICATIONS. — Confirmed tuberculosis, febrile conditions and neoplasm chronic diseases in acute stages, non-compensated cardiac conditions, hemiplegia.

MEDICAL MEN. — Drs. Alquier, Ambiès (J.), Bargy (F.), Beaudonnet, Bertrand, Bienfait, Binet, Bignon, Biscons, Bondouy, Bonnet, Bouchet, Bouet (Mlle), Boyer (Jean), Buvat (M.), Cahen (G.), Caillon, Castera, Chabrol (C.), Chaix, Charnaux, Cluzan (J.), Colonna-Walesky (A. de), Cornillon, Corset (F.), Cotar (Ch.), Deléage (F.), Dénier, Desgeorges, Desmaroux, Dufourt (E.), Dumas (R.), Durand-Fardel (R.), Duranton, Faivre, Fau (F.), Fournier, Frémont, Gannat (J.), Gandelin, Garban (Henri), Glénard (Roger), Gravost (Ch.), Guinard, Hadgès (A.), Houlbert, Jardet, Lalaubie (Guy de), La Mouche, Legou (E.), Margnat (Ed.), Martin-Péridie (Robert), Masseret, Mathieu de Fossey (A.), Mauban (H.), Medawar (Henri), Monod (Gustave), Niguay, Nivière, Parturier, Pellotier (A.), Puistienne (Léon), Rambert, Raymond (Léon), Reymond (Jean), Reynes, Rosanoff (Henry), Roubeau (H.-G.), Roux, Rouzaud, Santelli, Sérégé, Sillery Vale, Surel (J. de), Testé, Therre, Tournade, Treille, Vauthey, Vilemin.

SPÉCIALISTS. — Drs. Berthomier (Hydrotherapy, Electrotherapy, X Rays), Clergier (Surgery of the urinary tract), Mme Bouet-Henry (Gynecology), Bertrand de Névrèze (Mouth, Teeth), Cornil (Surgery, Confinements), Durrieux (Surgery, gynecology, urology), Faré (Mouth, Teeth) Faure (Eyes, ears, nose, throat), Guichard (Eyes, ears, nose and throat), Laffont (abdominal surgery, gynecology), Mirande (Mouth, Teeth), Morlet (Surgery), Mouriquand (Surgery only), Phelip (general surgery), Rajat (Skin, urinary tract, women's diseases), Siems (Ears, nose larynx, throat), Susini (Skin, urinary tract), Thomas (medico-surgical Radiology), Vallerix (Eyes, ears, nose adn throat), Veve (Mouth, teeth).

There is a medical library belonging to the local medical society which is open to doctors visiting resort.

The golf house.

LIFE AT VICHY

AMUSEMENTS. — Beautiful parks with fine trees surround the bathing establishment and are much frequented by visitors, most of the rooms for taking the waters are grouped in one of these parks ; they are surrounded by covered walks so that patients may continue their treatment whatever the weather. The principal hotels are in the vicinity of this park.

The musical and artistic attractions are of the best and there is a magnificent casino with a theatre seating 1.400. The Casino des Fleurs with its beautiful theatre and open air stage ; the famous Restauration where cinema films can be seen every evening, also adjoin this park. There are several orchestras giving concerts three times a day in the parks or in the casinos.

Vichy offers all kinds of sport : races, a celebrated horse-show, an excellent golf course in a central situation, numbers of tennis courts in the parks.

Vichy is a splendid centre for touring and especially for motorists who can explore the Auvergne mountains and picturesque valleys of the central chain.

ACCOMMODATION. — 6 Hotels de luxe and 20 first-class hotels ; hot and cold water ; electric light, central heating, bath-rooms. 3.000 bed-rooms, 500 with private bath-rooms.

50 second-class hotels, comfortable. 3.000 bed-rooms with hot and cold water.

Many third-class hotels, more modest. 5.000 bed-rooms.

Furnished houses, villas and reliable apartments at all prices.

GENERAL INFORMATION. — For information regarding the cure and the exportation of the waters, apply to the Compagnie Fermière de l'Etablissement Thermal de Vichy, 24, boulevard des Capucines, Paris. Telephone : Gutenberg : 17-50.

For information regarding the journey, hotels, excursions, apply to : Syndicat d'Initiative, 11, rue du Parc, Vichy (Allier).

VITTEL

(VOSGES)

COLD SULPHUR AND BICARBONATE SPRINGS, CONTAINING SALTS OF CALCIUM, SODIUM AND MAGNESIUM

SEASON
25th MAY
TO 25th SEPTEMBER

MEANS OF ACCESS
BY ROAD

Distance in kilometres from :

Paris	Kms. 370
Calais	— 506
Dieppe	— 474
Havre	— 527
Cherbourg	— 666
Nantes	— 658
Bordeaux	— 755
Marseilles	— 705

In the Park of the Bathing Establishment.

SEASON
25th MAY
TO 25th SEPTEMBER

MEANS OF ACCESS
BY TRAIN

Est Railway.

Length of journey from :

Paris	6 hours.
Calais	14 —
Dieppe	9 —
Havre	10 —
Cherbourg	13 —
Nantes	15 —
Bordeaux	16 —
Marseilles	20 —
Brussels	11 —

Four fast trains running every day from Paris.

VITTEL AS A SPA

SITUATION. — Vittel is situated at an altitude of 1.140 feet in the wooded and hilly region of the Faucilles. The spa is entirely separated from the town. 10.000 visitors every season.

CLIMATE. — The air is light, pure and fresh and, thanks to the aspect of the valley, the temperature is always moderate.

These conditions of situation and climate form a typical fresh air resort for arthritic subjects ; added to the effects of the disintoxication cure, they contribute to the physical stimulus resulting from the accelerated combustion (metabolism).

URBAN SANITATION. — Complete system of drainage, water extremely pure and widely distributed. The latest sanitary improvements have been employed in this important spa.

THE SPRINGS AND BATHING ESTABLISHMENT. — There are numerous springs, three of which are in use : the *Grande Source*, the *Source Marie* and the *Source Hépar*.

Grande Source : Temperature 51° F. ; yield : 129.000 litres per diem. It is colourless and odourless and has a fresh, agreeable and slightly chalybeate taste.

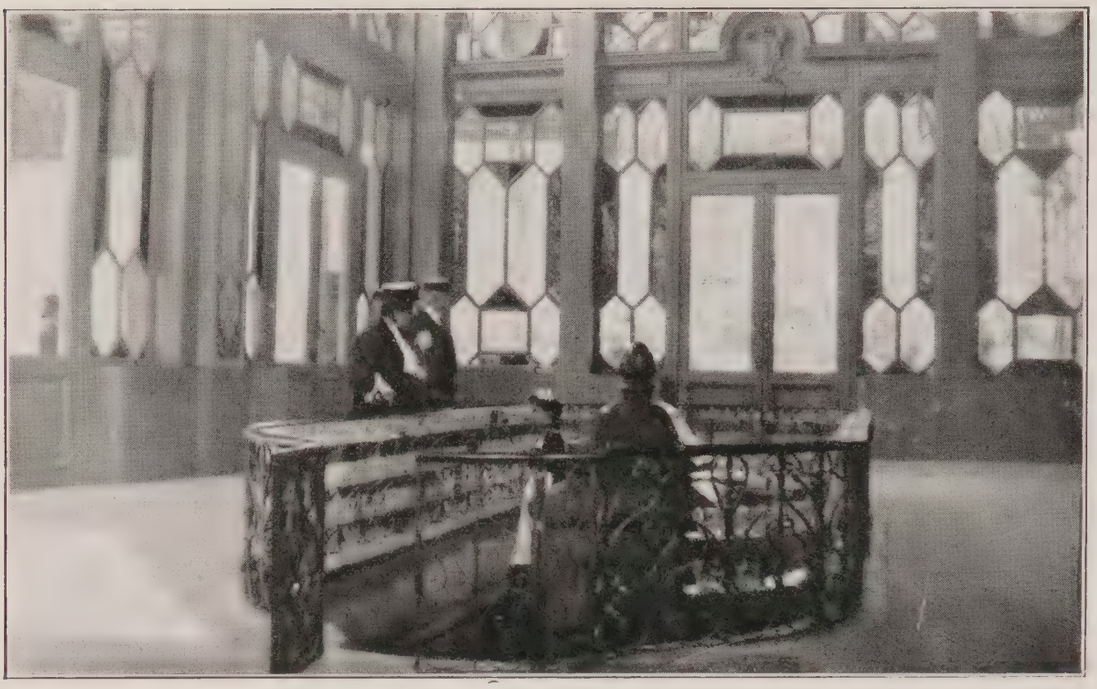
Source Hépar : Temperature 51° F. ; yield : 100.000 litres, has a fresh and mellow taste, not in any way salt, in spite of its old name ; it is slightly alkaline.

Source Marie : Yields 72.000 litres. Generally employed as an accessory water, it acts more particularly on painful disorders of the urinary and biliary passages.

PHYSIOTHERAPIC INSTITUTE. — This consists of two Establishments. One of them, the second-class establishment, is used exclusively for baths and douches. Its installation is simple out perfect.

The other, the first-class establishment, built in 1909, is at present considered one of the most perfect and complete installations for physiotherapy. In addition to the luxurious bathrooms, the commodious rooms for douches and the varied hydrotherapic applications, it includes installations for mechanotherapy, diathermy, radiotherapy and electrotherapy.

ESTABLISHMENT OF PHYSICAL CULTURE. — Oertel's Treatment.



The " Grande Source ".

THE WATERS

CHEMICAL COMPOSITION OF THE WATERS. — The total mineralisation of the *Grande Source* is 1 grm. 202 per litre and contains : sulphate of lime, 0 grm. 618 ; of magnesia, 0 grm. 192 ; of lithium, 0 grm. 004 ; carbonate of lime, 0 grm. 294 ; of magnesia, 0 grm. 039 ; of iron, 0 grm. 003 ; chloride of sodium and of potassium, 0 grm. 008 ; sodium silicate, 0 grm. 015 ; free and combined carbonic acid, 0 grm. 354 ; traces of fluorine alumina, magnesium phosphoric-acid.

The *Hépar spring* has a total mineralisation of 2 grm. 726 per litre. It is composed of sulphate of lime, 1 grm. 617 ; of magnesia, 0 grm. 580 ; of lithium, 0 grm. 0007 ; carbonate of lime, 0 grm. 323 ; of magnesia, 0 grm. 129 ; of iron, 0 grm. 0003 ; chloride of sodium and of potassium, 0 grm. 013 ; free and combined carbonic acid, 0 grm. 478. Traces of phosphoric acid, alumina, lithia and manganese. The principal constituents of this water are sulphur, calcium and magnesium.

PHYSIOLOGICAL ACTION. — The action of the Vittel water is eupeptic, diuretic and laxative.

The water appears to have a tonic action on the muscular walls of the stomach which, far from favouring gastric dilatation, tends to decrease it. It only remains a short time in the stomach and increases its contractility and the hydrochloric acid secretion ; this improves the appetite and the digestion. The diuresis generally manifests iself when the doses have exceeded 500 to 600 grammes and varies according to the quantities ingested, the mode of administration and the degree of permeability of the kidneys.

The urine passed after the absorption of the water is clear, almost colourless and of weak density : 1.002. This and the urea increase later to a quantity exceeding the normal. The uric acid, having first greatly increased by reason of the increased elimination of urine, diminishes rapidly and permanently, consequent on the action of the waters on the nutrition. The elimination of chlorides is also accelerated by the treatment.

The laxative action is produced principally by the Hépar spring which stimulates both the biliary and intestinal secretions, as well as the intestinal contractions, hence the distinctly bile-laden and free motion.

The action of the water on the bladder is at first slightly excitant and later sedative. The sensitivity of the bladder diminishes and its contractions become more energetic.

EXPORTED MINERAL WATERS. — Grande Source, Source Hépar.

MEDICAL MEN. — Drs. Adda, Amblard, P. Bouloumié, Buche, Burais, Claudel, Constant, Finck, Guyonneau, Lhuillier, Martin, Monsseaux, Paillard, L. Violle, Voirin.

The Springs and Cure Galleries.

CLINICAL INDICATIONS

PRINCIPAL THERAPEUTIC INDICATIONS. — The following diseases may be cured by the treatment at Vittel :

1. *Gout.* All gouty subjects especially of the florid type and the torpid type with more or less prolonged attacks benefit by the cure. Besides the regular forms of gout, the treatment is prescribed for all its articular and other manifestations. Hepato-biliary disorders, congestion of the liver, migraine, neuralgia, phlebitis and periphlebitis, bronchial, pharyngea and ocular manifestations, and cases of gout with manifestations of early sclerosis hypertension and gouty albuminuria.

2. *Renal, urinary, oxalic and phosphatic gravel.* The water acts by facilitating the movement of the gravel and by preventing its reproduction through local and general action. The cure is also prescribed with advantage in cases of gout with renal colic or attacks of lumbago.

In cases of renal calculi, the treatment can only be recommended when they are not large.

3. *Albuminuria.* Especially albuminuria indicating renal irritation ; albuminuria due to gravel ; slight mechanical and residual albuminuria. Functional albuminuria. Chronic albuminous nephritis.

4. *Inflammatory affections of the urinary sustem :* pyelitis, pyelonephritis, subacute or chronic cystitis.

5. *Biliary lithiasis* with or without hepatic colic ; hepatic colic due to gall stones ; hepatc colic caused by increased consistency of bile, catarrh of the biliary ducts ; gouty hepatic colic, habitual constipation allied with biliary insufficiency.

6. *Gastric disorders.* Dyspepsia of gouty subjects ; secretory dyspepsia, atonic dyspepsia

7. *Intestinal disorders.* Constipation due to insufficiency of the biliary secretion, or of a diathesic or atonic order.

8. *Arterial hypertonicity.* Especially during the period of pre-sclerosis when there is only functional disorder present, due to the intoxication. Arterio-sclerosis with oliguria, retention of urine and uroemia.

9. The *various manifestations of arthritis :* Arthritic glycosuria, certain forms of dermatosis certain migraines and all manifestations caused by urinary and oxalic intoxication.

10. Infantine arthritis, in particular for *children and adolescents of gouty parents,* the cure is indicated in cases of *urinary disorders* and troubles of micturition, incontinence, vesical spasm, *biliary troubles* (cyclic vomitting) ; *affections of the digestive system* associated with biliary insufficiency ; gastro-enteritis with constipation, certain forms of dermatosis, migraines.

The Casino.

LIFE AT VITTEL

AMUSEMENTS. — Vittel offers its guests unlimited resources for their leisure hours, during the cure.

The Park which extends until it merges into the surrouding country and neighbouring woods with no apparent dividing line and in the centre of which are the Springs, the Cure Galleries, the Bathing Establishment and the Physiotherapic Institute, contains a large race-course, bordering on a wood of 60 acres laid out in walks. For the benefit of followers of Oertel's treatment, special paths both shady and open, over hill and dale are also laid out.

In the vicinity are sports grounds of every kind for golf, polo, tennis, pigeon-shooting, fencing, etc.

Children's Park (1 acre), equipped for games and sports for every age under medical direction and supervised by a specialised lady attendant.

The Casino built by Ch Garnier, includes a very spacious hall, a large club, card and dancing-saloons, reading and writing rooms and a soda fountain, as well as a magnificent theatre where daily performances are given.

Concerts in the Park and at the Casino twice daily.

In the Cure Galleries, there are numerous luxurious shops, and a post-office, complete with telegraph and telephone.

The combined effect of these therapeutic and recreative organisations situated in the open country is to make Vittel the chosen spa for the *sufferer from arthritis* and at the same time a hygienic and *attractive resort for his family*.

Cleverly designed walks are laid out through the woods and to the neighbouring hills, from the summits of which a wonderful view can be obtained of the surrounding country extending to the blue line of the Hautes-Vosges.

Auto-car services facilitate excursions throughout the Lorraine country and to the battlefields of the Vosges, Verdun, Saint-Mihiel, etc.

ACCOMMODATION. — 4 first-class hotels, hot and cold water, electricity, central heating, bath-rooms. 700 bed-rooms, 300 with private bath-rooms.

7 second-class hotels, comfortable. 1 200 bed-rooms.

3 third-class hotels, more modest. 250 bed-rooms.

Numerous furnished houses, villas, and reliable apartments at all prices.

Diet restaurant.

GENERAL INFORMATION. — For information concerning the cure, tariff of the institutions, exportation of the mineral water, apply to :
The Directeur, Etablissement Thermal de Vittel, Vittel (Vosges).

Or to : La Société Générale des Eaux de Vittel, 24, rue du Quatre-Septembre, Paris. Téléphone : Gutenberg 42-80.

The Park of the Bathing Establishment.

AIX-EN-PROVENCE

THERMAL WATERS CONTAINING CALCIUM BICARBONATE

Season throughout the year.

SITUATION AND CLIMATE. — Aix, once the ancient capital of Provence is now in the department of Bouches-du-Rhône (30.000 inhabitants).

It is situated at the juncture of the roads from Avignon, from the Coast, from Italy and the Alps, to the north of the large district of Marseilles (29 kilometres distant) and to the East of the Rhône Valley. It is sheltered from the North winds (mistral) and from East winds by the neighbouring high woods. The climate is mild and particularly dry, only 87 days of rain per year, average rain-fall 550 mm., the weather is mostly clear and bright, fog and snow being almost unknown.

URBAN SANITATION. — Very complete drainage system and water-supply arrangements. Wide, airy and shady avenues.

THE SPRINGS AND BATHING ESTABLISHMENTS. — The springs employed most are the Sextius springs, yielding 8.000 hectolitres daily, which supply the Sextius establishment, the drinking pavilion and the swimming-bath.

The old " Thermes Sextius " have just been entirely reorganised and now contain every comfort, being clean, airy and well-lighted with every modern hydrotherapeutic appliance and containing a large swimming-bath with running water naturally warmed to a pleasant temperature, hydro-electric bath-rooms, light baths, vapour and hot-air baths, rooms for atomisation and inhalations of mineral water.

CHEMICAL COMPOSITION OF THE WATERS. — Thermal water (temperature 93°2 F.), containing calcium-bicarbonate, weakly mineralised, clear, limpid and crystalline with neither colour nor flavour. Its density, superficial tension and cryoscopic point closely approximates to that of distilled water. It is decidedly hypotonic which enables it to pass rapidly through the system.

PHYSIOLOGICAL ACTION AND TREATMENT. — The Sextius waters are given principally by the mouth and in running water baths.

By the mouth, taken fasting and between meals, these waters have a marked depurative and diuretic effect without any disagreeable severity. (Biliary and renal lithiasis, congestion of the liver or other viscera).

The temperature of the Sextius waters does not affect their taste or digestive qualities ; they are for this reason particularly appreciated for autumnal or winter cures.

Employed in running water baths, the Sextius waters are toni-sedative and are beneficial both in neuropathis conditions associated with excitement and persistent neuralgias and in those of a depressant type.

Two other classes of cases are specially suitable for Aix-en-Provence ; 1. Convalescents from phlebitis who still have insufficient venous circulation with persistent oedma and painful swelling of the lower limbs ; 2. Sufferers from various forms of vascular congestion, whether visceral or secondary to acute or chronic visceral conditions, also obstinate and pruriginous dermatoses.

Fontaine Mirabeau.

PRINCIPAL THERAPEUTIC INDICATIONS. — The cure by diuresis with the Sextius waters permits of the expulsion of gravel and prevents the subsequent formation of calculi. These waters are particularly beneficial to arthritics and gouty subjects predisposed to various forms of lithiasis, and cases of poisoning caused by excessive addiction to alcohol and tobacco also auto-intoxication consequent on acute microbial diseases ; typhoid fever, puerperal fever, dysentry, paludism and gastro-intestinal dyspepsias.

In baths, the action of the Sextius waters on vaso-motor disorders and their consequences, is attended by remarkable results in the following cases :

1. Oedemas resulting from phlebitis, etc.
2. General disorders of the nervous system.
3. Congestions of the uterus and its appendages.

CONTRA-INDICATIONS. — Pulmonary tuberculosis, cancer.

MEDICAL MEN. — Drs. Aurientis, Beisson, Bertrand, Baudisson, Casse, Champsaur, Charpin, Dargelos, Esprit, Fabre, Prof. Gaugoux, Drs. Gervais, Gignoux, Guebhard, Guillaumont, Latil (José), Latil (V.), Martin, Martin-Chabaud, Montely (de), Rampal, Sandino, Sicard, Thomas, Toy, Vadon, Vaissade, Walh, Vernet.

AMUSEMENTS. — The town of Aix possesses numerous buildings and Hotels for the most part in pure Louis XIV style, including the Cathedrale Saint-Sauveur (XI th century); the Archbishop's Palace containing some celebrated Beauvais Tapestries ; the Town Hall with its Clock-Tower and Méjanes library ; the Palais de Justice and the Eglises de la Madeleine, Saint-Jean de Malte (Tombs of the Counts of Provence). There is also an Art and Archaeological museum and a Natural History Museum.

Municipal Opera and Casino, dancing, entertainments, Provençal Fêtes, Aix Carnival, Horse-racing, Golf (links in course of construction).

The town is surrounded with hills crowned with pine-woods and richly cultured. Valley of the Arc, Roquefavour (14 km.), le Tholonet (6 km.), le Réaltor (16 km.), Saint-Rémy-les-Baux, Arles, Avignon, etc.

Excursions and ascents of the out-lying spurs of the Alps.

ACCOMMODATION. — 1 first-class hotel, hot and cold water, electric lighting, central heating, bath-rooms, 60 bed-rooms including 6 with bath-rooms. Thermal Establishment on the ground-floor of the building.

6 comfortable second-class hotels.

4 more modest third-class hotels, 100 rooms.

Furnished houses, villas and apartments suited to all requirements.

GENERAL INFORMATION. — Apply to the Syndicat d'Initiative, Cours Mirabeau, Aix and to the Société Fermière des Eaux Thermales d'Aix-en-Provence (at Aix, Cours Sextius) (at Marseilles, 20, rue Cannebière).

MEANS OF ACCESS AND COMMUNICATION. — P.-L.-M. railways, 16 hours from Paris, 7 hours from Lyons, 1/4 hour from Marseilles, 5 hours from Grenoble.

Direct services of auto-limousines between Marseilles and Aix. Apply to the Société Provençale de Tourisme, 20, rue Cannebière, Marseille.

Tramway from Marseilles to Aix.

For automobiles, good wide road Paris-Avignon-Nice-Côte d'Azur.

For all touristic information, apply to the Société Provençale de Tourisme, 13 Cours Mirabeau at Aix and 20, rue Cannebière at Marseilles.

General view of Allevard.

ALLEVARD

WARM WATERS CONTAINING HYDROGEN SULPHIDE, SODIUM AND CALCIUM CHLORIDE

Season 1st June to 30th September.

SITUATION AND CLIMATE. — Alleward is situated in one of the most beautiful valleys of the Dauphiné at an altitude of 1.558 ft. It is sheltered from winds by the surrounding mountains and its climate is temperate. The mean summer temperature is 64°4 F., the relative humidity is 60 %, and the atmospheric pressure is 718 millimetres.

CHEMICAL COMPOSITION OF THE WATERS. — Without entering into a detailed analysis, the main characteristics of the waters may be described as follows : the waters are cold, temperature 60°8 F., they contain a very large quantity of hydrogen sulphide, 24 cc. 75 per litre ; carbonic acid, 97 cc. per litre ; nitrogen, 41 cc. per litre

PUBLIC HEALTH. — The drinking-water is brought from Veyton in the mountains, five kilometres from any habitation. Sanitation is on the sewer system. The streets are watered. There are disinfecting rooms and a department of public health.

THE SPRINGS AND BATHING ESTABLISHMENT. — Allevard possesses a single spring whose yield is 130.000 litres in 24 hours. The bathing establishment contains seven rooms for cold and four for hot inhalations. Each room is reached by way of transitional rooms and there are numerous private dressing-rooms. There are separate rooms for men and women where spray and jet throat douches are given. A new building containing the drinking fountain has been erected upon the actual site of the spring.

The characteristic feature of the Allevard treatment is inhalation, both hot and cold. The efficacy of the method depends upon the relase into the atmosphere of the inhalation rooms, by the impact of the water against an obstacle, of the hydrosulphuric acid which is so largely present in a free state in the Allevard waters. The atmosphere of the cold rooms is kept at an ordinary temperature and contains this gas. The atmosphere of the hot rooms contains in addition a large proportion of vapourized thermal water. The water is artificially heated and its vapour is diffused through the hot inhalation rooms by means of cracks in the flooring. The temperature of the hot rooms varies from 82°4 to 89°6 F.

PHYSIOLOGICAL ACTIVITY AND METHODS OF TREATMENT. — Although the general therapeutic activity of the Allevard water corresponds to that of all sulphur waters, there is one detail in the Allevard method which demands special consideration, namely,

View of Park with Casino and Bathing Establishment.

the hot and cold inhalations. Both methods tend to reduce the hyper-secretion of the respiratory mucosa ; it is however in the general reaction to treatment that a difference is observed. The hot inhalation reduces congestion and is sedative in its action, the cold inhalation is stimulant. It is obvious then that the methods correspond to two very different classes of patient and that the indications depend upon age, temperament and the nature of the malady.

The water is also employed in the form of gargles and sprays and it is given by the mouth. Baths, foot-baths and douches of plain or thermal water are given and these again may be reinforced by massage.

PRINCIPAL INDICATIONS. — *Nose :* Chronic coryza, hypertrophic and atrophic rhinitis. rhino and pharyngo-salpingitis. — *Pharynx :* Enlarged tonsils, chronic angina, sequelae of diptheria, granular pharyngitis, adenoid growths, recurrent follicular sore throat, stomatitis. — *Larynx* : Chronic simple laryngitis, recurrent laryngitis, stridulous laryngitis, spasm of the glottis. — *Bronchi and lungs :* Chronic trachaeitis, bronchial susceptibility, recurrent bronchitis, bronchial catarrh and emphysema, dry bronchitis, asthma with bronchitis, hay fever, sequelae of measles, whooping cough, influenza, trachaeo-bronchial glandular, disease, sequelae of pneumonia and pleurisy. — *Skin :* eczema, acné, etc. — *Ear* : External and medial otitis. — *Vagina and uterus :* Leucorrhoea, chronic metritis, cervical metritis.

MEDICAL MEN. — Drs. Chataing senior, Boel, Chataing junior, Mr. and Mrs. Liacre de Saint-Firmin.

AMUSEMENTS. — There is a casino with writing, lecture and card rooms, a park, tennis courts, concert hall. There are numerous walks and excursions such as : the Pierre d'Artiste the Bout du Monde, the Chemin du Bréda, la Chevrette, the Pont du Diable, the Cret du Poulet, the Chapelle Blanche, the Sept Laux, the Pic de la Pyramide, etc. Guides are obtainable.

ACCOMMODATION. — There is one first-class hotel with 160 bed-rooms of which 16 have bath-rooms attached. Hot and cold water is laid on ; there are bath-rooms, central heating arrangements, lifts.

There are 5 comfortable second-class hotels, with 280 bed-rooms.

There are 8 more modest third-class hotels, with 90 bed-rooms.

23 furnished houses, villas, apartments, etc. are available.

Open air treatment and the benefits of an altitude are obtainable at the La Curtillard hotels. This is 15 kilometres from Allevard and has an altitude of 3,281 ft.

MEANS OF ACCESS. — Allevard is on the Paris-Grenoble line ; alight at Pontcharra-sur-Breda whence a tramway runs to Allevard (14 kilometres).

There is a regular motor-car service daily during the season to Grenoble, Chamonix, the Grande Chartreuse, the Col de Lautaret.

GENERAL INFORMATION. — Inquiries should be addressed to La Compagnie Générale d'Eaux Minérales et de Bains de Mer, 48, rue Taitbout, Paris ; or to Le Syndicat d'Initiative, Allevard.

View of the Bathing Establishment.

AMÉLIE-LES-BAINS

HYPER-THERMAL SULPHUROUS WATERS CONTAINING SODIUM

Season throughout the year.

SITUATION AND CLIMATE. — Nestling in a hollow of the valley at the Eastern extremity of the Pyrenean chain (35 kilometres from the sea), Amélie-les-Bains is sheltered on all sides from the winds by the mountains, between which flow two torrential rivers, the Tech and the Mondoni. At an altitude of 230 metres, the climate is warm without excess (mean annual temperature 58° F.), dry and temperate with an average of 71 days of rain only per year. The purity of the air and intense luminosity of the sky are favourable for sun-cures. Population : 1.600 inhabitants.

URBAN SANITATION. — The wide and numerous avenues, spacious squares and extensive gardens assure an exceptional salubrity.

The abundant yield of the springs permits of the public distribution of water at 122° F by double-spouted fountains, from which pure cold drinking water gushes at the same time.

A municipal bureau d'hygiene has just been established and will function continuously.

Military hospital, market.

THE SPRINGS AND BATHING ESTABLISHMENTS. — Among the 39 recognised springs, more than 30 of which are utilised, the most important are: *the Grand Escaldadou, the Petit Escaldadou* and *the Source du Bassin de Réfrigération* (Thermes Romains), *the Sources Arago, Anglada, Amélie* (Thermes Pujade).

There are a great number of drinking pavilions, the most famous being those of the Source du Manjolet, the Source Pascalone and the Source Chomel.

The temperature of these waters is very high ; 88°40 to 143°6 F.

Two Thermal Establishments :

1. *Les Thermes Romains* (Antique Remains). Perfect installations for balneotherapy, bath-rooms, rooms for douches, large Roman swimming-bath, Promenade Gallery 100 metres long, special quarters for treatment by spray and vapour inhalations and three rooms for taking the waters.

2. *Les Thermes Pujade* are built at the actual point of emergence of the spring from the rock, which prevents any alteration taking place by contact with the air when bringing the thermal water from the rock to the bath-rooms. The Establishment contains two swimming-baths with running water, light and airy bath-rooms, rooms for hydrotherapy warmed during the winter, cabinet vapour baths, rooms for treatment by spray and vapour inhalations ; 5 rooms for taking the waters.

CHEMICAL COMPOSITION OF THE WATER. — The total mineralisation reaches 0,317 and consists, in addition to a slight sulphuration, of alkaline salts with a strong proportion of silicates and organic matters.

AMÉLIE-LES-BAINS (Pyrénées-Orientales)

The old Bridge.

PHYSIOLOGICAL ACTION AND TREATMENT. — Their chemical composition confers on the Amélie waters a remarkable combination of excitant properties (the characteristic of thermal sulphurous waters) and sedative properties due to their pronounced alkalinity and their large proportion of silicates and organic matters.

These properties are accentuated by *sulphite decomposition* (transformation by contact with the air from mono-sulphur of sodium into sulphite and hyposulphite and finally into sulphate and carbonate of soda). This variability represents a valuable quality since it substitutes for the excitant qualities of the sulphurous water the sedative qualities which render it suitable for new applications.

The waters are employed in baths, swimming-baths, general and local douches, Scotch douches, under-water douches, treatment by inhalation, gargling and internal administration.

PRINCIPAL THERAPEUTIC INDICATIONS. — Very acute and chronic rheumatism, articular and muscular ; rheumatic neuralgia and especially sciatica, St. Vitus Dance, articular disorders, muscular atrophy and sequela of war-wounds.

2° Chronic disorders of the respiratory tracts ; rhinitis, pharyngitis, laryngitis and chronic bronchitis treated by nasal douches and inhalations. Excellent results have been obtained by sufferers from gas-poisoning.

3° As a consequence of sulphite decomposition, the waters are very rich in sulphites and hypo-sulphites and possess a solvent action on mercurial salts thus permitting of an intensive treatment of syphilis without fear of poisoning.

Among the secondary indications, the following must be noted ; lymphatism, scrofula, certain affections of the genito-urinary organs, certain dermatoses, and lastly most of the affections to which Colonials are subject.

CONTRA-INDICATIONS. — Those of sulphurous waters in general ; cardiac insufficiency, uremia, arterial hypertension and active pulmonary tuberculosis.

DOCTORS. — Drs. Alardo, Arnal, Berthier, Boulian, Bouix, Forgemol de Bostquénard, Gournet, Pujade.

AMUSEMENTS. — Among the local curiosities, the following are deserving of mention ; the swimming-bath of the Thermes Romains (historical monument) ; the Church and Cloister of Arles-s-Tech (4 kilometres distant from Amélie), the Chapelle de Santa Engracia and the Fort built by Louis XIV now used as a private residence.

There are numerous walks and excursions in the neighbourhood including that to the *Gorge du Mondoni*, a gigantic waterfall with a perpendicular drop of 100 metres between high mountains and rocks, the torrential volume of water escaping by the *Cascade d'Annibal* ; Pilon de Belmatx ; Montalba l'Église with its cascade ; Mas Pagris ; Cascade du Therme ; Roc Saint-Sauveur ; Palalda ; Calvaire de Montbolo ; Reynes and the Vallon de l'Ample.

Service of auto-cars of the Route des Pyrénées (Amélie being the halting place for lunch).

Automobiles and horse-drawn vehicles for hire, guides for the excursions ans ascents.

The Grand Casino where theatrical representations are given and dancing can be obtained is open from the 20th June to the 20th April. Cinemas, concert, good wild-boar and other hunting, trout-fishing.

ACCOMMODATION. — Several 2nd-class and 3rd-class hotels.

4 boarding-houses, numerous furnished houses, apartments, villas, chalets, etc.

GENERAL INFORMATION. — Apply to the Syndicat d'Initiative d'Amélie-les-Bains, La Mairie, Amélie-les-Bains ; information bureau open throughout the year.

MEANS OF ACCESS AND COMMUNICATION. — Midi Railways, branch line from Arles-s-Tech rejoining the main Paris-Barcelona line at Elne. 18 hours distant from Paris, 10 hours from Marseilles, 14 hours from Lyons, 12 hours from Bordeaux, 9 hours from Barcelona.

The Bathing Establishment Apollo's Gallery.

AX-LES-THERMES

SUBTHERMAL, THERMAL and HYPERTHERMAL WATERS

CONTAINING SODIUM-SULPHIDE, HYPO-SULPHITES, CARBONATES & SILICATES

Season from 1st May to 1st November.

SITUATION AND CLIMATE. — Ax-les-Thermes is situated in the South of the district of Foix at an altitude of 2,450 ft. on the borders of Ariege, Aude, Pyrénées-Orientales and Andorre, at the confluence of three Pyrenean streams in a valley open to the East and West. In the immediate neighbourhood of the watershed between the Mediterranean and Atlantic slopes, the country partakes of the characteristics of both these regions, being entirely free from fogs and with infrequent winds.

URBAN SANITATION. — Drinking water carried in pipes from the forest head-springs, a distance of 3 kilometres from the town. Drainage system under construction. Strictly supervised municipal street-sweeping and watering. Electric lighting.

THE SPRINGS AND BATHING ESTABLISHMENTS. — The 80 springs of Ax have a total yield of more than 2.500.000 litres. Several of the springs flow through the streets and supply in particular a pool called the *Bassin des Ladres* constructed in 1260 by Louis IX for the treatment of Crusaders bringing back leprosy from Palestine.

The others feed four thermal establishments, namely Le Coloubret, le Teich, le Breilh and le Modèle, where there are complete hydrotherapeutic installations including 15 separate sections of baths with 134 bath-rooms, 25 douches with strong and medium pressure, 2 rooms for inhalations and four hot vapour bath-rooms supplied by the vapours from springs at a temperature of 158° to 167° F., two rooms for local douches, four rooms where the waters from 18 springs are taken, and a "Vaporigene" constructed by Dr. Bousquet which enables vapours and hyperthermal gases to be insufflated under pressure into the upper respiratory tracts and the Eustachian tube.

There still exists a thermal hospital built by Louis IX in the year 1260.

CHEMICAL COMPOSITION OF THE WATERS. — The waters, of which the temperature varies between 72° and 173°3 F. contain sulphides, hypo-sulphites, precipitated sulphur (washed), alkaline carbonates and silicates, lithia, certain metals and metalloids (Garrigou), organic matters (barégine). That the radio-activity is very high is shown by the large quantities of nitrogen and rare gases (helium, argon, etc.) which are liberated from the waters (Garrigou, Moureu, etc.).

The establishments are built on the exact points of emergence of the springs from the rock and this coupled with the fact that some of the waters are warmed or cooled by being passed through hyperthermal or cold water (protected meanwhile from contact with the air), renders the cure at Ax extremely efficacious.

Valley of Orgeix and Orlu.

PHYSIOLOGICAL ACTION AND TREATMENT. — The general or local improvement anatomical or functional is explained by the increased functional activity effected by the hydro-mineral cure on the various organs and systems and the soothing of painful phenomena. The treatment consists of baths, general, local and under-water, douches, douche-massage, sprays, inhalations, massage and hot vapour baths. The waters are also given by the mouth.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *Specific Diathesis : a)* rheumatism and Gout ; *b)* scrofulo-tuberculosis ; *c)* syphilis ; *d)* defective nutritional conditions in children and adults ; *e)* atonic conditions arising from infections and intoxications.

2. *Functional conditions :* Articular and peri-articular manifestations, neuralgias, venous, cutaneous and respiratory conditions ; female genito-urinary affections, occupational and war-wounds, particularly injuries to joints and the pulmonary sequelae of poison-gas ; affections of the nose, throat and ears.

CONTRA-INDICATIONS. — Acute gout, congestive tuberculosis, hepatic disease, angina pectoris, malignant growths.

DOCTORS. — Drs. Bonafous, Bousquet (oto-rhino-laryngological specialist), Boyer, Gomma, Nicod, Thévenin.

AMUSEMENTS. — Ax-les-Thermes is primarily a resort where one can obtain rest and relaxation. The roads are excellent and there are many attractive excursions in the neighbourhood as well as a great number farther afield to the valleys, peaks, lakes and grottos of Andorre, Cerdagne and Spain. There is good hunting and shooting (bears, Pyrenean chamois, grouse and partridge) and also trout fishing, etc. Tennis can be obtained.

The Casino to which is attached an orchestra and a theatrical troupe contains card-rooms, etc.

The snow at Ax lasts a long time and at an altitude of 4.265 and 6.233 ft., are large plateaux, eminently suitable for winter sports.

MEANS OF ACCESS AND COMMUNICATION. — Ax is at present the terminus of a branch line of the Midi Railway running from Toulouse (124 kilometres) with a service of five trains daily, including one express, and is situated on the future Transpyrenean Railway from Toulouse to Barcelona via Ripoll. It is one of the principal halting-places between Luchon-Superbagnères and Font-Romeu on the Route des Pyrénées auto-car service of the Midi Railway.

ACCOMMODATION. — 7 comfortable second-class hotels ; 300 bed-rooms.
10 third-class hotels, more modest ; 150 bed-rooms.
Several furnished villas and numerous family boarding-houses with bed-rooms.

GENERAL INFORMATION. — Apply to the Syndicat d'Initiative, La Mairie, Ax-les-Thermes (Ariège).

The " Thermes de Salut ".

BAGNÈRES-DE-BIGORRE

THERMAL WATERS CONTAINING CALCIUM SULPHATE

Season from 1st May to 31st October.

(Most of the Establishments are open all the year)

SITUATION AND CLIMATE. — Bagnères, the terminus of the line from Tarbes is situated upon the river Adour, at the foot of the Pyrénées. Altitude : 1817 ft. Population : 8.800.

Temperate mountain climate. " It is a typical sedative station of medium altitude " (Professeur Rathery). Average temperature for the year 52°47 F.

HYGIEN. — Abundant supply of cold drinking-water (3.000 litres per inhabitant). Complete drainage system. Street watering by means of a motor pump. Electric lighting. Model disinfection service.

THE SPRINGS AND BATHING ESTABLISHMENTS. — 39 Springs with a daily yield of million litres which can be divided into three groups :

1. The thermal water group containing calcium-sulphate, includes the majority of the springs, with a scale of temperature varying between 77° F. and 123°8 F. (Salies), and a total mineralisation of 2,6 grammes ; bicarbonates of calcium, iron and manganese 0,299 ; sulphate of calcium, magnesium, sodium and lithia : 2,102 grammes ; chlorides of sodium and potassium : 0,182 grammes ; sodium arseniate : 0,001 grammes ; copper, fluorine, etc.

2. Cold waters containing iron : Angoulème, Grand Pré.

3. A cold sulphurous water, Labassère, contains 0,046 grammes sodium-sulphide. This spring emerges in the Commune of Labassere, is exceptionnaly stable which renders it particularly suitable for exportation. After having been bottled for several months, sulphur in the colloidal state is found in the water.

The principal Establishments are : *les Thermes* (Anciens Thermes Marie-Therese) which contain six rooms for taking the water, some thirty bath-rooms, large and small douches, massage rooms, vapour baths, rooms for spray and vapour inhalations.

Les Thermes de Salut, pump-room, bath, douches.

Les Neo-Thermes ; baths in waters from the Salies and Labassere springs.

(Swimming bath 20 by 13 metres and from 1 to 1,50 metres deep).

The baths and douches of *Bellevue*, *Cazeaux* and *Lias* ; the baths of the Grand Pré, the pump-rooms of Labassere and la Peyrie.

All the bath rooms are built in marble, in which stone the country is very rich, the same material being much in evidence throughout the establishments.

DOCTORS. — Drs. Bassal, Benezech, Courbin, Frank-Duprat, Gandy, Lacoste, Pedeprade, Portes, Ricard-Pomarede, de Villegente.

PHYSIOLOGICAL ACTION AND METHOD OF TREATMENT — Taken internally the thermal waters of Bagnères promote digestion by stimulating the excito-secretory action of the glandular system ; some of them (*Salies*, *le Dauphin*, *la Reine*) stimulate the excito-motor action ; others (*Salut*, *Grand Pré*) have a soothing and regularising effect, which is one of the characteristics of Bagneraise crenotherapy.

The Establishment and the " Place des Thermes ".

In baths, the hyperthermal springs possess an excitant action but the most famous springs, such as le Foulon and le Salut have a manifest sedative action upon the skin as well as on the circulation and on the nervous system, particularly in invalids suffering from hypertension, whose arterial pressure is lowered by several centimetres.

The principal indication of Bagnères-de-Bigorre, and which constitutes the chief attribute of the resort is the treatment of nervous subjects, functional rather than organic.. " Bagnères-de-Bigorre more than any other spa in the world possesses all that is indispensable for this very distinctive type of invalid " (Rathery).

The climate and the waters combine admirably to produce this sedative effect.

In addition, as the same author rightly points out, the appropriate treatment of conditions of spinal irritation (the cause of neuroses) can be obtained at Bagnères better than anywhere else. Whether the manifestations are of a digestive, respiratory, cardio-vascular, genital, cutaneous or renal character, the doctor can choose from the numerous thermal and hydrotherapic resources of Bagnères, the particular treatment which the case demands. For those suffering from constipation, he will prescribe the waters of the Rampe or of the Labassère ; for sufferers from gastralgia, the water of the Salut ; for asthmatical subjects, the arsenical water of Salies ; for women suffering from metritis, injections of Salies water, or if there is hyperesthesia, baths in Salut or Foulon water, etc., which latter is also prescribed together with Platane for sufferers from eczema with persistent pruritis, arthritis, etc.

Children, especially irritable children, derive great benefit from the atmosphere and the waters of this resort.

To summarise, the spa of Bagnères-de-Bigorre is suitable for all neuropaths, sufferers from neuro-arthritis, and invalids with whom nervous troubles predominate, with or without concomitant lesion compatible with a thermal cure.

There is no special contra-indication at Bagnère. It is sufficient to point out the chief contra-indications which are common to all the resorts ; neoplasm, advanced cardiopathy, feverish complaints, cachectic conditions, etc.

ACCOMMODATION. — Numerous comfortable hotels, with running water. Pensions de famille where the cuisine is exquisite also diet hotels. Well furnished villas in the outskirts of the resort situated in shady locations. Furnished apartments and accommodation suitable for all classes of visitors

AMUSEMENTS. — Casino, Theatre, Concerts, several tennis courts and cinemas.

Special mention is due to the *Chanteurs Montagnards*, a purely local choral society, which being conducted in an entirely original manner is much appreciated by the visitors.

Numerous delightful excursions : Lac Bleu, Lac Vert, Montaigu, Lhéris, Pic-du-Midi with its observatory (8650 ft). By tram to Lourdes and Artigues (at the foot of the Pic du Midi).

The incomparable charm of Bagnères, however, from a picturesque point of view is the Vale of the Salut, the beautiful natural park which is a continuation of the thermal quarter and where artists of the Comédie-Française can be heard at the wonderful open-air theatre.

GENERAL INFORMATION. — Apply to the Syndicat d'Initiative de Bagnères-de-Bigorre.

Panorama of Bagnoles.

BAGNOLES-DE-L'ORNE

HOT SPRINGS OF UNDETERMINED COMPOSITION (slightly metallic)
AND COLD SPRINGS YIELDING IRON

Season from 15th May to 1st October.

SITUATION AND CLIMATE. — The spa of Bagnoles-de-l'Orne is an association of the village of Tessé-la-Madeleine and the commune of Bagnoles-de-l'Orne. It is 248 kilometres from Paris on a branch of the Paris-Granville line. The climate of Bagnoles is that of the west coast of France and, by reason of its situation on the borders of the forests, it also enjoys a woodland climate. Average altitude : 730 ft.

THE SPRINGS AND BATHING ESTABLISHMENT. — There are two springs : *La Source des Fées*, 53° F. and *La Grande Source*, 78°60 F. Modern bathing establishment containing a complete outfit for balneotherapy.

CHEMICAL COMPOSITION OF THE WATERS. — 1. *La Source des Fées :* Chalybeate water, not aerated, leaving an iron deposit, is used for drinking.

2. *La Grande Source :* Plutonian origin 78°60 F. : issues from a granite rock and throws off large lubbles of gas ; it yields 38.000 litres per hour. Density : 1.006. Cryoscopic point : 0,009. Electrical resistance : 15,775 w. 70. At the Source the reaction is slightly acid. It contains 0 grm. 0540 of solid extract, per litre at 387°75 F. It contains : electro-negative elements : calcium, iron, lithium, magnesium, potassium, sodium, strontium. Electro-positive elements : antimony, arsenic, chlorine, phosphorus, silicon, sulphur ; *gases :* nitrogen, 90 % ; carbonic acid, 5 % ; argon, 4,5 % ; helium, traces. Radio-activity of the gases : N = 0,36. Radio-active salts in suspension in the water.

PHYSIOLOGICAL ACTION AND TREATMENT. — The basis of the treatment is baths. All the devices of hydrotherapy, ingestion of the water, mobilisation, light massage, massage often given in the bath, air treatment, walks, gymnastics and diet constitute the treatment at Bagnoles.

The baths produce ischemia of the superficial blood vessels ; the tissues are flushed. Improvement of general and local circulation. Greater permeability of the veins. Diuresis and elimination of uric acid. The arterial tension approaches the normal. All the functions of nutrition are awakened. The sympathetic nervous system is stimulated and especially the secretory and vaso-motor fibres.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *Primary and specific indications :* All disorders due to sluggishness of the venous system, whatever the cause, the nature or the

The Bathing Establishment.

seat. *a)* Phlebitis, periphlebitis, varix of the limbs or body superficial, deep or visceral (haemorrhoids, varicocele, varicose veins peri-uterine or varicose veins in the true pelvis, etc.), phlebosclerosis, phlebalgia, painful venous erethism, etc.

b) Menstrual disorders due to inertia of the genitalia : chronic metritis with parenchymotous lesions and atonic uterus, prostatitis with passive venous congestion.

c) Diseases due to insufficiency of the endocrine glands (suprarenal, thyroid, ovary, etc.).

2. *Secondary indications :* Nervous depression, asthenia, anaemia, arthritis, rheumatism, eczema, malaria, tropical diarrhoea with organic atony.

CONTRA-INDICATIONS. — All acute feverish conditions, all cachectic conditions, advanced arterio-sclerosis, asystole, tuberculosis, neoplasms, all disorders with haemorrhagic tendencies, congestive conditions or excessive functioning of an organ, ovarian cycts, anevrisms.

MEDICAL MEN. — Drs. Censier, Chaperon, Hugel, Joly, Le Muet, Loisel, Pesnel, Petit, Peyré, Poulain, Quiserne, Scheurer.

AMUSEMENTS. — Bagnoles is a quiet resort of the best class. Ill and tired people will find there, besides healthy and hygenic recreation, rest and respite from the stir and clamour of the world. In addition to the waters, the climate and food products of the rich Norman soil contribute to their convalescence.

Besides being a spa, this resort is an excellent watering place for children, convalescents and anaemic and nervous subjects.

Undulating country, meadows and forests, splendid roads, beautiful and numerous walks and excursions, chateaux, historical interests ; an excellent centre for touring.

Casino, theatre, teas, concerts, lectures, races in August, fairs, decorated carriages, battles of flowers, organised by the Comité des Fêtes. Tennis club, tournaments.

ACCOMMODATION. — 5 first-class hotels, electricity, central heating, hot and cold water, bath-rooms on every floor. About 800 bed-rooms, 100 of which have private bath-rooms.

12 second-class hotels, comfortable. About 360 bed-rooms.

13 third-class hotels, more modest. About 240 bed-rooms.

100 furnished houses, villas and apartments at all prices.

MEANS OF ACCESS. — From the north, east and south-east, via Paris and the Paris-Granville line (State Railway), there are direct carriages from the Gare des Invalides. From the south, west and centre, the route is via Le Mans, and the Bordeaux-Rouen train.

From the west and north-west (England) the route is via Laval, Granville, Caen, Rouen.

GENERAL INFORMATION. — Apply to the Director, Etablissement Thermal, Bagnoles-de-l'Orne (Orne) and at Paris, 78, rue de Provence, also to the Syndicat des Hôteliers de la Station Thermale de Bagnoles-de-l'Orne, and to the information bureau of the Chambre d'Industrie thermale.

The Salins Baths

BESANÇON-LA-MOUILLÈRE

WARM SPRINGS, A HIGH PERCENTAGE OF SODIUM CHLORIDE WITH SOME IODINE AND BROMINE

Establishment open throughout the year. — Season : May 1st to September 30th.

SITUATION AND CLIMATE. — Mouillère is situated near the town of Besançon being separated from it only by the river Doubs and the Micaud road ; its altitude is 850 ft. The climate offers the tonic and stimulative influences of mountain air during the summer, but is not bracing.

La Mouillère is six hours from Paris, four from Lyons and only two hours from Alsace and Switzerland.

THE SPRING AND THE BATHING ESTABLISHMENT. — The saline source is intercepted at Miserey three miles from Besançon, and brought to the bathing establishment by special piping.

There are seventy-four apartments of three classes in the establishment ; six for sulphur and sulphur-saline baths ; two large halls for hydrotherapy, vapour baths and aerotherapy rooms for remedial exercices and orthopedics, mechanotherapy, massage, douches and sitz baths, ascending douches ; apartments for the application of Fango de Battaglia (mineral volcanic mud)

CHEMICAL COMPOSITION OF THE WATERS. — This natural mineral saline water contains 298 grammes of saline elements (Sp. Gr. 1.024) to the litre ; 291 grammes of this are chlorides (283 grammes of sodium chloride), marked traces of sodium iodide and 0 grm. 108 of potassium bromide. In short, there is a high percentage of chlorine salts and a valuable one of bromides.

The natural water contains per litre 323 grammes of saline elements, 308 of which are chlorides (235 grammes of sodium chloride) and 2 grm. 250 of potassium bromide.

PHYSIOLOGICAL ACTION. — Under the influence of strong saline treatment by a reflex physico-chemical action and not by absorption, the sensitivity of the skin increases rapidly, the skin becomes supple ; the peripheral circulation of the blood and lymph is distinctly accelerated, the swellings disappear both in the region of the injured members and, in cases of pelvic cellulitis, from the vicinity of the uterus.

The number of red corpuscles is increased as well as the haemoglobin, the phagocytosis becomes more active and the respiratory quotient is reduced ; the amount of urine increases, together with the uric acid, urea and co-efficient of nitrogen.

On the other hand, the phosphoric acid and extractive nitrogenous matters decrease. In a general way the functional activities are greatly stimulated and the patient experiences a feeling of health and euphoria.

BESANÇON-LA-MOUILLERE (Doubs)

The "Porte Taillée".

THERAPEUTIC INDICATIONS. — 1. *Children's diseases.* Congenital debility, anaemia, chlorosis, rickets, lymphatism, scrofula, adenopathy, simple or bacillary, fistula, with or without adenoid growths, pharyngitis, chronic coryza, otorrhoea, blepharitis, conjunctivitis. La Mouillère is the resort for children in cases where there are contra-indications to sea air:

2. *Women's diseases.* Particularly exudative diseases, metritis, endometritis, salpingitis, ovaritis, parametritis, pelvic cellulitis, also amenorrhoea, dysmenorrhoea, fibroma, habitual abortion and sterility, local and general disorders of puberty and the menopause, conditions following parturition affecting the uterus and its appendages.

3. *Chronic diseases of the bones and joints.* Osteitis, peri-osteitis, suppurative or not, arthritis, tumor albus, coxalgia, Pott's disease, tendrous synovitis, deviations in the vertebral column, chronic rheumatism, atonic gout, obesity, fatty diabetes.

CONTRA-INDICATIONS. — Active pulmonary tuberculosis, serious compensatory disorders in diseases of the heart and kidneys, malignant tumors, febrile or cachectic conditions.

MEDICAL MEN. — The medical practitioners of the town of Besançon. Consulting physician of the bathing establishment : Dr. Dasse.

AMUSEMENTS. — The neighbouring town of Besançon offers numerous points of interest, museums, libraries, monuments, industries. At the Casino concerts, plays, balls, exhibitions, reading-rooms, card-rooms, roulette, tennis, soda fountain.

Numerous walks in the immediate vicinity. Daily excursions into the picturesque Jura by P.-L.-M. motors (Jura and Circuit of Doubs route).

ACCOMMODATION. — 3 first-class hotels. Electricity, central heating, bath-rooms, hot and cold water, with 200 bed-rooms, 10 of which have private bath-rooms.

3 second-class hotels, comfortable, with 75 bed-rooms.

5 third-class hotels with 125 bed-rooms. Furnished houses, boarding houses.

CHILDREN. — For children whose parents cannot accompany them, there are two excellent establishments where they will receive every care. 1. Les Maisons d'Enfants des Salins de Bregille, Office : 14, rue Charles-Nodier, Besançon. 2. Le Sanatorium de Palente (M. Metzger, Beauregard, Besançon).

MEANS OF ACCESS. — 72 trains daily. Besançon-la-Mouillère is six hours from Paris, five from Lyons, two from Alsace and Switzerland.

GENERAL INFORMATION. — Apply to the Directeur, Etablissement des Bains Salins, Besançon-la-Mouillère.

General view of the Bathing Establishment.

BOURBON-LANCY

WEAKLY MINERALISED RADIO-ACTIVE WATERS, CONTAINING SODIUM CHLORIDE, MIXED BICARBONATES, IODIDE AND ARSENIC

Season : 15th May to 1st October.

SITUATION AND CLIMATE. — Small town in the Saone and Loire, in the vicinity of the Nièvre and Allier with a suburb known as Saint-Léger, which constitutes the spa. Altitude : 780 ft. 4.500 inhabitants. Temperate, healthy climate, permeable soil, rich vegetation. The town lies on the lower slopes of the Morvan which drops gradually to the Loire. 337 kilometres from Paris.

THE SPRINGS AND THE BATHING ESTABLISHMENT. — The *Lymbe, Reine, Descures, Valois* and *Marguerite* springs. Daily yield : 400 cubic metres. Bright emerald mosses around the wells.

Thirty-four apartments with baths and underwater douche installations. Four rooms fitted with natural vapour baths both general and local. Massage shower. Steam shower. Special apartments for treating gynecological conditions. Atomisation. Inhalation of the natural steam of the Lymbe spring evolving radio-active emanations. Hydrotherapy massage, and mechanotherapy.

Two establishments : that of the spa itself and that of the Hospice d'Aligre for the poor.

CHEMICAL COMPOSITION OF THE WATERS. — Sodium chloride : 1 grm. 35. Alkaline bicarbonates, traces of arsenic, manganese and fluorine. Total mineralisation : 1 grm. 70. Warm springs (136°4 F. to 118°4 F.) according to the springs, which are of deep or plutonian origin.

Important liberation of gas composed of nitrogen, emanations of radium and rare gases (helium).

URBAN SANITATION. — Purest drinking water from the Mont mountain.

PHYSIOLOGICAL ACTION AND TREATMENT. — Sedation of nervous and painful manifestations, regulation of the peripheric circulation and the heart. Stimulation of nutrition. Disintoxication by expulsion of urates and uric acid.

The treatment consists in the imbibition of the Reine and Descures waters, in external treatment (baths with under-water douches, vapour baths, inhalations, various douches) and in massage and the methodical movements of mechanotherapy.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. Functional disorders of the heart, precordial pain, simple tachycardia, paroxysmal tachycardia, exophtalmic goitre, neuralgic or vaso-motor angina pectoris, pseudohypertrophy of the heart in adolescence.

Thermal Gallery.

2. Recent rheumatismal or postchoreic endocarditis, with or without valvular lesions (always provided the pericardium and heart muscle have not been profoundly involved).

3. Well compensated valvular lesions with functional disorders of the heart in addition.

4. Arterio-sclerosis in the early stages with hypertonia dyspnoea on exertion, gouty subjects, exhaustion of a functional nature, increased viscosity of the blood or vascular spasm. Tuer exhaustion, slight recent stroke, cardio-sclerosis with arythmia or severe pain chronic aortitis, cardio-sclerosis affecting the aortic bulb.

5. Arthralgia or neuralgia of rheumatic or gouty origin in patients who are nervous and excitable even in the acute stage or in intractible forms.

6. Pelvic neuralgia, dysmenorrhoea, sequelae of painful metritis or annexitis.

CONTRA-INDICATIONS. — The acute phase of endo-pericarditis ; uncompensated cardiopathy ; arterio-sclerosis complicated by albuminuria ; angina pectoris from disease of the coronaries, aneurism of the aorta.

MEDICAL MEN. — Drs. Bellœuf, Compin, Pain, Piatot (Chevalier de la Légion d'Honneur, croix de guerre, formerly resident medical officer in Hospitals in Paris).

AMUSEMENTS. — Bourbon-Lancy is a resort for invalids, it is situated in the heart of the country and is free from noise. The treatment occupies the whole day ; its applications are extremely varied. All the hotels are close to the bathing establishment and the patients return in sedan-chairs in order to rest in bed after treatment.

Entertainment rooms, large shady park with special paths for Oertel's treatment. Excellent roads for motoring, good carriages and cars for hire.

ACCOMMODATION. — Principal hotel : 120 bed-rooms ; electric light ; lift ; bath-rooms ; diet restaurant.

1 second-class hotel, comfortable, 100 bed-rooms, electric light.

5 hotels, more modest, 150 bed-rooms.

Furnished houses, apartments, villas, the majority unpretentious.

MEANS OF ACCESS. — P.-L.-M. System. Two stations : Bourbon-Lancy-Le-Fourneau, on the branch from Cercy-la-Tour to Gilly, 3 kilometres from the spa ; Bourbon-Lancy-Ville at 500 metres from the spa, on the line Bourbon-Lancy to Toulon-Saint-Arroux.

337 kilometres from Paris. P.-L.-M Bourbonnais line via Nevers-Cercy or Moulins-Gilly. Motor buses take patients and their luggage from Moulins to Bourbon-Lancy.

Length of journey Paris-Bourbon : 7 to 8 hours.

The principal hotels have motor buses at the disposal of tourists and patients.

GENERAL INFORMATION. — Apply to the Director, Etablissement Thermal, Bourbon-Lancy, or to the Syndicat d'Initiative.

The new park and the Bouridé route.

CAPVERN-LES-BAINS

WARM WATERS CONTAINING SULPHATES, CALCIUM AND MAGNESIUM BICARBONATES

Season from 20th May to 1st October.

SITUATION AND CLIMATE. — Capvern-les-Bains, about three kilometres from the village of that name, is situated at the foot of the central Pyrenees, below the Plateau of Lannemezan. Its altitude is 1.558 ft. and the climate, intermediate between that of the mountains and that of the plains, is salubrious and pleasant. It is tonic without being stimulating. By its position, Capvern is sheltered from winds and from extremes of temperature, and for this reason its climate is peculiarly sedative and anti-spasmodic in character.

THE SPRINGS AND BATHING ESTABLISHMENTS. — There are two principal springs : La Hount-Caoute which yields 20.700 hectolitres per day and Le Bouridé, whose daily yield is 16 416 hectolitres.

There are two bathing establishments, La Hount-Caoute has a drinking-fountain and installation for baths and douches. Le Bouridé is equally well equipped.

CHEMICAL COMPOSITION OF THE WATERS. — The Hount-Caoute spring has a temperature of 75°2 F. ; that of Le Bouridé 66°2 F. Both contain calcium and magnesium bicarbonates and sulphates, with traces of arsenic, copper and lithia. The most important constituent is, however, calcium sulphate : 1 grm. 123.

In addition to these mineral constituents, Le Bouridé contains an oily organic matter known as glairine or barégine, due to the presence in the water of nitrogenized substances, vegetable elements and magnesium silicates. Owing to its carbonic acid, potassium, sodium and silica contents, this water possesses marked sedative, antiphlogistic and antispasmodic properties.

In common with all mineral waters, these springs have a certain radio-activity, due to the presence of an emanation of radium.

PHYSIOLOGICAL ACTIVITY AND METHODS OF TREATMENT. — Taken by the mouth, the water of Hount-Caoute has a strong diuretic action. Owing to its osmotic activity and the modifications which it brings about in various organs, it effects when taken fasting, a perfect irrigation of the entire system, cellular, intestinal, hepatic and urinary. The urine is enabled to carry off the major proportion of the waste products of intracellular combustion, and abnormal nitrogenized products are dissolved and eliminated.

Hence there is a marked improvement in the emonctory activity of the liver and kidneys and an increased excretion of bile and urine.

Employed externally, the water of Hount-Caoute has a stimulant action, it is slightly exci-

Neighbourhood of Capvern; Mauvezin castle.

ting. According to Prof. Trousseau it is an excellent medicament. In small doses it acts as a powerful diuretic, with revulsive and consequently cleansing properties.

The water of Le Bouridé may also be taken by the mouth. It has pronounced diuretic properties. When employed externally in the form of baths, it is singularly sedative in its action, it relieves congestion and tends to regulate the potentiality of the nerve-cells. " The efficacy of the Bouridé waters is so striking " writes an English physician Dr. Farr, " that it may be justly described as marvellous ".

It is the combined clinical activities of the two waters, Le Hount-Caoute and Le Bouridé, which constitute the " treatment " of Capvern.

PRINCIPAL INDICATIONS. — *Specific to Capvern :* Lithiasis, especially of the kidneys and bladder; hepatic and intestinal lithiasis; affections of the kidneys and bladder, cystitis, pyelitis and pyelo-nephritis.

Secondary Indications: All arthritic affections, chronic rheumatic affections, gout, obesity, congestion of the liver and kidneys, albuminuria, diseases of women, the menopause.

GENERAL AND ABSOLUTE CONTRA-INDICATIONS. — All acute conditions, emaciating diabetes, malignant tumours, cardiac affections with broken compensation, interstitiel nephritis, metritis, hemorrhage.

MEDICAL MEN. — Drs. Carcy, Petiteau, Pouy.

AMUSEMENTS. — Capvern is, in the firts instance, a spa for rest. Hence the social life is quiet and reposeful. In the place of transient amusement, the visitor to Capvern discovers those greater benefits, an improved nutrition, better metabolic exchanges and a stabilization of the nervous forces, due to the low altitude and the mild climate.

There is a casino with lecture and conversation rooms. Various fêtes are held. There are concerts three times a day. The walks and excursions in the neighbourhood include : the Plateau of Lannemezan, the castle of Mauvezin which dates from Roman times and which affords a striking view of the Pyrenees; Saint-Bertrand-de-Cominges, Bagnères-de-Bigorre, Bagnères-de-Luchon, Tarbes, Pau, Lourdes, etc.

ACCOMMODATION. — One first-class hotel with hot and cold water, electric-lighting, 60 bed-rooms, 30 of which have private bath-rooms.

4 comfortable second-class hotels with 300 bed-rooms.

10 more modest third-class hotels with 500 bed-rooms.

30 furnished houses, villas, apartments to suit all tastes and conditions.

MEANS OF ACCESS. — By railway Capvern is 30 kilometres from Tarbes, 40 from Lourdes, 60 from Pau, 120 from Toulouse, 400 from Bordeaux. During the summer months the train service is good.

GENERAL INFORMATION. — Inquiries should be addressed to La Direction de l'Etablissement Thermal, Capvern-les-Bains, Hautes-Pyrenées.

General view.

DIVONNE-LES-BAINS

Bathing Establishment open all the year.

SITUATION AND CLIMATE. — Divonne is situated on the Eastern slopes of the Jura mountains which protect it from the north winds ; it overlooks the plain and the lake of Geneva. Height : 1.685 feet. Climate temperate and dry, mean temperature : 50° F.
Eleven hours from Paris and 18 kilometres from Geneva.

URBAN SANITATION. — A village of 1.600 inhabitants, the spa being situated at the highest part.
Abundant spring water, very pure and cold, used in all the hotels and throughout the village — Complete drainage system. — Electric lighting.

THE SPRING AND BATHING ESTABLISHMENT. — Four springs rise in the park belonging to the spa. The chief quality of the water is its coldness ; its temperature, irrespective of the season, remains at 43° F. Yield : 85.000 litres per minute.
The *Bathing Establishmen* is built close to the springs and comprises :
1. A building in which the water is heated sufficiently to raise the temperature of the douches and the baths to whatever degree may be ordered by the physician ;
2 A building containing douche rooms, bath-rooms, bathing pools, light baths and numerous private rooms.

CHEMICAL COMPOSITION OF THE WATERS. — Pure cold, strongly aerated, containing no mineral salts, low specific gravity ; they aid digestion and are powerfully diuretic

PRINCIPAL THERAPEUTIC INDICATIONS. — Divonne has become an important centre for the treatment of *nervous diseases and disorders of nutrition :* here the weak, the exhausted and the weary find again their lost vigour and vitality.
Insomnia, hysteria, neurasthenia, psychasthenia, chorea, exophthalmic goitre, anorexia, dyspepsia and nervous enteritis, hepatic insufficiency, constipation, gastro-intestinal auto-intoxication, menstrual disorders, genital weakness.

CONTRA-INDICATIONS. — Pulmonary tuberculosis, cardiac and renal disorders.

PHYSIOLOGICAL ACTION. — *Internal administration :* Cleansing of the blood and kidneys, active diuresis, renders the bile more fluid.
External use : The cold water aids the circulation, relieves arterial tension, increases the tone of all the organs of the body. The tepid and warm waters disperse spasm, favour sleep and regularise the body functions in the weak, irritable and exhausted.

DIVONNE-LES-BAINS (Ain)

The Bathing Establishment.

Therapeutic use. — Baths, hip-baths, graduated douches at all temperatures, from 43° to 113° F. Scotch douches, moist packs, affusions, cold bathing pool, carbon dioxide baths, light baths, vapour baths and sweating.

Hydrotherapy is aided by :

a) *Rest cure,* this is rendered easy by the absence of noise and the peace of the open country.

b) *Aerotherapy and heliotherapy :* Very airy rooms, open balconies and a large well-shaded park.

Divonne, in spite of its low altitude, has a mountain climate and the air is very pure and without a trace of dust or smoke ; the tired, the exhausted and the anaemic here find the bracing qualities of height and sunshine at the same time enjoying the peace and quietness which are so necessary for their welfare.

c) *Exercise :* Lying between the Jura (1 kilometre) and the lake of Geneva (5 kilometres), Divonne is a centre for excursions suitable for everyone, the plain for the weak and weary, the mountains for the active in summer. In winter ski-ing and toboganing for all.

d) *Diet :* There are special tables for diet according to physicians' orders.

e) *Psychotherapy :* The doctors at the spa are all skilled in the practice of isolation and psychotherapy.

MEDICAL MEN. — Drs. Ballivet, Bonnus, Ernst, Roland, Vieux.

AMUSEMENTS. — Large park, tennis, fishing, hunting, excursions, winter sports.

Municipal casino, concerts, balls, amateur theatricals, library in the bathing establishment.

ACCOMMODATION. — 1 first-class hotel, hot and cold water, electric light, central heating, bath-rooms. 200 bed-rooms and suites with bath-rooms and every modern comfort.

2 second-class hotels, comfortable. 300 bed-rooms.

2 third-class hotels, less pretentious. 150 bed-rooms.

Furnished houses, villas and apartments to suit all requirements.

MEANS OF ACCESS — Through carriages from Paris (gare de Lyon) first and second class and sleeping-cars.

Junction at Bellegarde for Lyons and Marseilles.

Motor coach service P.-L.-M. (Jura route) and to Mulhouse, Besançon, La Faucille, Divonne, Geneva.

GENERAL INFORMATION. — Apply to the Director, Etablissement Thermal, Divonne-les-Bains (Ain).

General view taken from Aas.

EAUX-BONNES

FIXED SULPHUR WATERS CONTAINING SODIUM AND CALCIUM

Season 25th May to 15th October.

SITUATION AND CLIMATE. — Altitude 2.493 ft. Mean temperature from 20th June to 20th September : 65°48 F. The Spanish frontier runs between Biarritz, Lourdes and Pau. Eaux-Bonnes lies in a richly wooded valley at the foot of the Pic-du-Ger, 8.569 ft. The drinking water is good, very abundant and of remarkable purity. Sanitation of freeholds is on the sewer system.

THE SPRINGS AND BATHING ESTABLISHMENTS. — There are seven springs of similar composition, the most important of which are the *Orteig* and the *Vieille* springs. The waters of these contain both sodium and calcium.

There are two bathing establishments : 1. The *Grands Thermes*, supplied by the Vieille spring, has rooms for gargling, for atomized throat douches, for nasal and aural irrigation and for inhalation It has four sections fitted with immersion baths, a room for douches of various kinds with cubicles for friction and massage, and two special sections, ladies' and gentlemen's, with foot-baths.

2. The *Neo-Thermes*, supplied by the Orteig spring, is used chiefly in the management of children's diseases and is provided with a special playing park. It has immersion baths in separate sections for boys and girls and a room for douches and massage. The mecano-therapeutic installation is very complete.

CHEMICAL COMPOSITION OF THE WATERS. — The seven springs, of which one is cold, are very similar in composition. — La Vieille differs in that it contains sodium and calcium (Gold Medal, London 1908). The analysis is as follows : Temperature 90°86 F. ; sodium sulphide 0,0214 ; calcium sulphide 0,017 ; sodium chloride 0,2640 ; sodium sulphate 0,0277 ; calcium sulphate 0,1644 ; silica 0,0500 ; ammonia 0,0005 ; organic matters 0,0480 (Prof. Filhel) ; nitrogen 98,2 ; silver and helium 1,8. There are traces of copper, tin, gold, lead, platinum, zinc, cobalt, nickel, iron, manganese, bismuth, antimony, arsenic. The metal contents are extremely rich and varied (Prof. Garrigou) and the radio-activity is very marked (Prof. Moureu).

PHYSIOLOGICAL ACTIVITY AND METHODS OF TREATMENT. — The waters constitute a sovereign remedy in all cases where, owing to accidental or constitutional causes,

EAUX-BONNES (Basses-Pyrénées)

The Valentino Falls.

the system is in need of energetic stimulus, a touch of the whip, so to speak. They are indicated in affections of the throat and the mucosa of the respiratory passages, as well as in maladies of all those mucous membranes to which the waters can be given direct access.

The waters are administered by the mouth ; they are also employed externally in the form of irrigations, inhalations and atomized douches. These measures are reinforced by open air treatment and graduated walks in the forest, which is exceptionally fine.

PRINCIPAL INDICATIONS. — Anaemia, lymphatic conditions, neurasthenia, chronic inflammatory conditions of the mucosa of the respiratory passages (affections of the nose and throat), pulmonary emphysema, asthma, bronchial catarrh, pneumonia, pleurisy, early cicatrization of wounds.

CONTRA-INDICATIONS. — Febrile pulmonary tuberculosis and acute disease.

MEDICAL MEN. — Drs. Beigber, Creignoux, Fournier, Rigoulet (speaks English and has English and French medical degrees), Vidaut de Pomerait (speaks Spanish).

AMUSEMENTS. — There is a casino and a theatre ; in January and February there are winter-sports. The walks are many and beautiful, and excursions into Spain are easily arranged. Eaux-Bonnes is a halting place of the motor-car service which runs from Biarritz to Luchon. Motor-cars and horse-carriages may be had for long or short excursions ; horses, mules, etc., are obtainable.

ACCOMMODATION. — There is one first-class hotel with every modern convenience, hot and cold water, central heating, electric-lighting, bath-rooms. It has 85 bed-rooms, of which 10 have private bath-rooms.

There are 12 comfortable second-class hotels with 600 bed-rooms.

There are 10 third-class hotels, more modest in character, with 400 bed-rooms.

There are 4 furnished houses, 10 furnished villas, chalets, apartments, etc.

MEANS OF ACCESS — The main line service is to Laruns or Pau ; from Laruns a motor-car service connects with each train. The journey from Paris (Quai d'Orsay station) is made by through carriage via Bordeaux and takes 15 hours. By the Pyrénées-Côte d'Argent Express, the *train de luxe*, it takes 13 hours.

GENERAL INFORMATION. — Inquiries should be addressed to La Compagnie Fermière, 22, rue de l'Arcade, Paris, and Eaux-Bonnes (Basses-Pyrénées).

The park and Bathing Establishment.

LUXEUIL

WARM CHLORIDE AND FERRO-MANGANESE SPRINGS

Season 15th May to 1st October.

SITUATION AND CLIMATE. — Luxeuil, 6.000 inhabitants, is the chief town of the department of Haute-Saône and is situated as the base of the southern slopes of the Vosges. Altitude : 1.148 ft. It is 406 kilometres from Paris, on the Paris-Belfort line via Port d'Atelier and Aillevillers (journey of 7 1/2 hours).

Temperate Vosges climate, salubrious air. Luxeuil is surrounded by forests.

URBAN SANITATION. — Drinking water, drainage system, electric lighting.

THE SPRINGS AND BATHING ESTABLISHMENT. — Luxeuil possesses 18 warm springs, with a daily yield of 600.000 litres, forming two principal groups : *Salines*, very warm, 96° to 125°35 F. ; *ferro-manganese*, 69° to 84° F. These latter constitute, through their temperature a group unique in Europe. All these waters contain fairly large quantities of nitrogen and fluorine *and are very rich in radio-active properties.*

The bathing establishment, the property of the State, is built in a magnificent park. It contains bath-rooms, and rooms for irrigation, swimming baths with running water, hot air baths (emanatorium), rooms for inhalation, for douches, for massage. The baths and swimming baths are made of sandstone which has the property of becoming saturated with radio-active emanations. The establishment is open all the year round.

CHEMICAL COMPOSITION OF THE WATERS. — The *saline springs* have the highest mineralisation, averaging 1 to 2 grammes. The Grand Bain spring, 1 grm. 113. They have been found to contain about 1 grm. of chloride, 0 grm. 035 of carbonate of soda, 0 grm. 085 of lime, 0 grm. 010 of lithium, 0 grm. 146 of sulphate of soda, traces of arsenic, iron and manganese.

The *Iron yielding springs*, are less mineralised and less warm, 60°60 to 64° F. They are remarkable for their iron contents, 0 grm. 012 ; and manganese, 0 grm. 09. This latter content is not found in any other warm spring. These waters issue from granite and are of plutonian origin. They cool less quickly than ordinary water heated to the same temperature. They are slightly aerated.

TREATMENT. — Balneo-therapy predominates at Luxeuil (baths in a bath or swimming pond, vaginal irrigation carried out in the bath, douches, intestinal lavage, massage). But it is the vaginal irrigation undertaken in the bath which is the triumph of this spa, because it is administered in conditions which can be realised at Luxeuil only, thanks to the high

Place de l'Abbaye.

temperature of the different springs, 103°75 to 125°20 F. and to the position of the baths By a clever system of canalisation the water is caught as it leaves the rock and is carried directly into the bath without coming into contact with the air. This is therefore a virgin water in possession of its full dynamia, a veritable *living water* having undergone neither heating nor cooling. It comes into direct contact with the neck of the uterus with the pressure reduced to a minimum in order to constitute a real local bath.

These facts explain the marvellous action of the Luxeuil irrigation in all forms of gynecopathy.

PHYSIOLOGICAL ACTION. — The physiological action is *sedative*, *decongestive* and *tonic*. The sedation of the nervous system with a special bearing on the pelvic organs is observed in cases of painful uterine erithism with constant congestive condition. The *radioactive emanations possess a remarkably sedative action* from this point of view.

The decongestive action is due especially to the unusual heat of the water. This action is accompanied by a very marked haemostatic action. The tonic and restorative action is mostly due to the ferro-manganese springs.

PRINCIPAL THERAPEUTIC INDICATIONS. — Luxeuil is preeminently a spa for women. The majority of patients are those with uterine and genital disorders. Every variety of severe genital phlegmasia, cellulitis and sclerosis of the uterus and its appendages are also treated. Luxeuil has the effect of combatting congestion, causing the reabsorption of exudates, regulating local circulation and allaying pain and spasms, at the same time toning up the general condition. Chronic subacute inflammatory conditions of the uterus and its appendages and of the peritoneum. Arthritic congestion of the genital organ. Pelvic neuralgia. Disorders of the ovulation. Sterility. These are the major indications for the cure at Luxeuil. We must also mention all *uterine fibromata* in which pain is present. In all these cases, the manifest sedative action of the waters of Luxeuil is especially indicated.

MEDICAL MEN. — Drs. Bornèque, Causeret, Cugnier, Delpech, Gauthier, Héraud, R. de Langenhagen, Paris, Picot, Pierra, Poirot, Rimey.

AMUSEMENTS. — Beautiful park, casino with card-rooms and reading-rooms, concerts, tennis, picturesque environs, easy excursions into the Vosges and Franche-Comté.

ACCOMMODATION. — 3 first-class hotels, hot and cold water ; electric light, bath-rooms. 250 bed-rooms, 5 with private bath-rooms.

1 second-class hotel, comfortable, water supply, central heating, 38 bed-rooms.

4 third-class hotels, modest, 115 bed-rooms.

30 furnished houses, apartments and villas

GENERAL INFORMATION. — Apply to the Directeur, Etablissement Thermal, at Luxeuil (Haute-Saône), or to the Syndicat d'Initiative of Luxeuil.

The Springs.

MARTIGNY-LES-BAINS

COLD WATERS CONTAINING CALCIUM SULPHATE, LITHIUM, MAGNESIUM. SILICATES

Season from 25th May to 25th September.

SITUATION AND CLIMATE. — Martigny is a small Vosges town, situated in picturesque surroundings on the Faucilles plateau. Altitude : 1.300 ft. The climate is dry and three are no great variations of temperature. These are Martigny's special features.

CHEMICAL COMPOSITION OF THE WATERS. — Three principal springs. Temperature : 50° F. Density : 1001,5.

The Lithinée spring is typical. Mineralisation : 2 grm. 344 per litre. Sulphate of lime : 1 grm. 774. Sulphate of magnesium : 0 grm. 129. Bicarbonate of lithium : 0 grm. 030. Silicates of soda and of lime

THE SPRINGS AND BATHING ESTABLISHMENT. — The three springs utilised to day are situated in an enclosed park of 40 acres : *The Lithinée, Dames* and *Savonneuse springs*-

The bathing establishment comprises : two apartments for douches, complete hydrotherapy, jet, shower, circular, lumbar, perineal and horizontal douches. Four bath-rooms de luxe, 10 simple bath-rooms, rooms with baths of resinous vapour or dry vapour baths, two rooms for sulphur baths, six rooms with under-water douches, two rooms for ascending douches, one room for under-water massage, four for dry massage.

Modern comfort, airing and lighting, etc

PHYSIOLOGICAL ACTION AND TREATMENT. — The action of the water causes an intestinal or urinary flushing every morning according to the temperament of the patient. Besides these virtues of irrigation, the water has an action on the smooth fibres of the muscular coats, and reduces calculi and causes their expulsion. It is aperitive and diuretic in small doses and laxative in medium doses.

The water is used chiefly for imbibition, doses of 300 to 2.000 grammes, according to the disorders and condition of the patient. The posology varies according to the individuality and age of the patient. Custom has decreed a cure of three weeks but it may be longer, shorter, or divided according to the opinion of the doctor.

MARTIGNY-LES-BAINS (Vosges)

" Pavillon des Sources ".

PRINCIPAL THERAPEUTIC INDICATIONS. — *Uricaemia :* It removes congestion of the kidneys and the urinary passages and causes the expulsion of sand.

Gravel : It facilitates the expulsion of stone, arrests haematuria, cleanses the urinary passages. Pyelitis and pyelo-nephritis due to gravel are improved.

Gout : The water expels the uric acid, stimulates nutrition, improves the general condition. Deforming polyarthritis.

Disorders of the liver : Gouty albuminuria, gouty glycosuria, renal ptosis, arterio-sclerosis.

CONTRA-INDICATIONS. — Cardiopathy with non-compensated lesion, cancer tuberculosis, congestive cerebral conditions, acute conditions.

MEDICAL MEN. — Drs. Dedet, Foucart, Martin, Payen.

AMUSEMENTS. — The park is a charming medley of verdure and flowers. It is an ideal place for children who can have the advantages of a fresh air cure whilst playing in safety.

Casino, theatre, concerts, gaming-rooms, tennis, golf, bowls, croquet, shooting, line fishing. Many interesting excursions. Special trains are provided for visiting Domrémy and Gérardmer.

ACCOMMODATION. — One first-class hotel, 200 bed-rooms or suites, electric-lighting, bath-rooms.

2 comfortable second-class hotels, electric-lighting.

7 more modest third-class hotels.

Furnished houses, apartments and villas.

SANITATION. — By their situation in a park of 40 acres, the Martigny bathing establishment and its hotels are admirably suited to a rest cure. The air is pure, dry and ozonised.

MEANS OF ACCESS. — The journey from Paris occupies 11 hours 30 (Compagnie des Chemins de fer de l'Est), by direct train.

GENERAL INFORMATION. — Apply to the Société des Eaux et Etablissements de Martigny-les-Bains, 30, rue de Petrograd, Paris (Tél. Central 97-28) and to the Syndicat d'Initiative, Martigny-les-Bains (Vosges).

The Bathing Establishment.

NÉRIS-LES-BAINS

HOT ALKALINE WATERS

Season : 15th May to 1st October.

SITUATION AND CLIMATE. — This attractive little town is in the department of Allier and has 3.500 inhabitants. It is situated upon the side of a hill upon the high road between Clermont and Tours and is divided into two distinct quarters. The town itself, or *Bourg*, is grouped round an old Roman church and its altitude is 1.246 ft. The modern portion, le *Bain* as it is called, is composed of hotels and villas surrounding the bathing establishment and has an altitude of 1.164 ft. The climate is mild ; it is even, salubrious and dry.

THE SPRINGS AND BATHING ESTABLISHMENT. — The springs are caught in six wells and yield over 1.500 000 litres in twenty-four hours. Their temperature is 127°4 F.

There are two bathing establishments, the property of the State :

The *Grand* Establishment has a very complete hydrotherapeutic installation. There are bath-rooms de luxe, numerous first-class bath-rooms, vapour baths and rooms for douche-massage.

The *Petit* bathing establishment is reserved for poorer clients. It is open all the year round.

The Thermal hospital has recently been rebuilt and is furnished with every modern contrivance for hygien and for comfort. During the season, indigent patients or those sent under certain conditions by communes or departments, are received at a very low price for a period not exceeding twenty days.

Application for such patients should be made to the Director of the Hospital.

CHEMICAL COMPOSITION OF THE WATERS. — The waters are only slightly mineralized (1 grm. 26 per litre). They contain carbonates of baryta, lead and copper ; and alkaline fluosilicates and fluoborates associated with lithia.

The waters are radio-active. When exposed to the air, conferva in great abundance are deposited, a veritable submarine flora.

PUBLIC HEALTH — The drinking water is conveyed in conduits. A very complete sewer system is in course of construction. The streets are watered and the town is lighted by electricity. Covered Market.

PHYSIOLOGICAL ACTIVITY AND THERAPEUTIC EMPLOYMENT. — The first few baths have a somewhat stimulant effect ; there is general muscular pain, the urine becomes scanty and red and the pulse is fluttering. After about twelve or fourteen baths, these symptoms decrease in severity and disappear, giving place to a gradual and steadily increasing amelioration of all the general and specific phenomena. This *sedative action* is characteristic of the Néris waters.

All forms of hydrotherapy are practised at Néris ; there are baths, swimming-baths, douches, douche-massage, irrigations and vapour-baths. The conferva are sometimes employed for local application.

The steam from the waters is employed in the form of vapour-baths and douches.

NÉRIS-LES-BAINS (Allier)

The Casino.

PRINCIPAL INDICATIONS. — *Diseases of the nervous system :* In affections of the central nervous system the action of the water is limited. It is, however, efficacious in the painful stages of locomotor ataxia ; and in diffuse myelitis, *a frigore* or of traumatic origin.

Among *peripheral nervous* affections, *neuralgia* (facial, intercostal, sciatic, cutaneous, visceral, etc.) is absolutely amenable to treatment.

Neuritis and neurasthenia of every description are immensely benefitted. Such conditions are : neuritis of zonal or traumatic origin, writers' and pianists' cramp ; neuroses, hysteria, traumatic neuroses, convulsions, chorea, tics of all kinds and the multitudinous phenomena classed as nervousness. Neurasthenia, chronic headache, insomnia, Graves' disease, Parkinson's disease.

Rheumatic conditions, diseases of women and neuro-arthritic dermatoses are all satisfactorily treated at Neris.

MEDICAL MEN. — Drs Bernard, Decloux, Delarrat, Dercure, Ducros, Macé de Lépinay.

AMUSEMENTS. — Regarded socially, Neris is a quiet spa. The daily life is calm and free from excitement. There are two large and shady parks, the Parc des Arènes and the park belonging to the bathing establishment.

There is a Casino with reading-rooms, lounges, gaming-rooms, concert hall and theatre

The Rickotter museum contains Roman antiquities and a fine collection of Roman coins excavated at Neris and in the surrounding country. Neris is the " Neriomagnus " of the Romans and its existence dates from the first century after Christ.

The hall of the bathing establishment contains interesting Roman sculptures excavated in the neighbourhood. The casino orchestra plays two or three times daily in the park.

Entertainments are organised by the Comité des Fêtes and there is an open-air theatre in the Parc des Arènes.

There are many charming walks and excursions may be made by carriage or car.

The country is hilly and the valley of the Cher has interesting ravines and other picturesque features.

ACCOMMODATION. — There are 12 comfortable second-class hotels, with 450 bedrooms. There are 8 more modest third-class hotels with 115 bed-rooms.

There are about 50 furnished houses, villas and apartments to suit all conditions and tastes.

GENERAL INFORMATION. — For information concerning the treatment and the tariff of the bathing establishments, application should be made to La Direction de l'Etablissement Thermal, Néris-les-Bains, Allier.

All domiciliary details are supplied by Le Syndicat d'Initiative, Néris-les-Bains.

St-Gervais and the Miage Mount.

SAINT-GERVAIS

THERMAL WATERS CONTAINING CHLORIDES, SULPHATES, HYDROGEN SULPHIDE, SILICATES AND LITHIA

Season 25th May to 30th September.

SITUATION. — The commune of Saint-Gervais, the territory of which extends to the summit of Mont Blanc, is situated upon both banks of the river Bonnant, at the foot of a spur of Mont Blanc. The spa, Saint-Gervais-les-Bains-le-Fayet, has a population of 2.000 inhabitants and is visited annually for the sake of its waters by about 8.000 persons. It is at 591 kilometres from Paris.

CLIMATE. — The altitude of Saint-Gervais is 1 968 to 2 788 ft ; it has a mountain climate and is sheltered from winds. The condensation of aqueous vapour by the glaciers renders the air exceptionally dry ; their presence tends, moreover, to purify the atmosphere. The temperature during the day is moderate, 53,6 to 68° F. and the nights are cool and fresh. At the beginning and end of the season the climate is extremely pleasant and open-air treatment is possible even in winter.

PUBLIC HEALTH. — The department of public health is extremely well managed. The drinking-water is excellent ; it is derived from springs of an absolute purity and the system of conduits is excellent. Sanitation is on the sewer system. The streets are watered and the town is lighted by electricity. There is a municipal office of public health and a disinfection service.

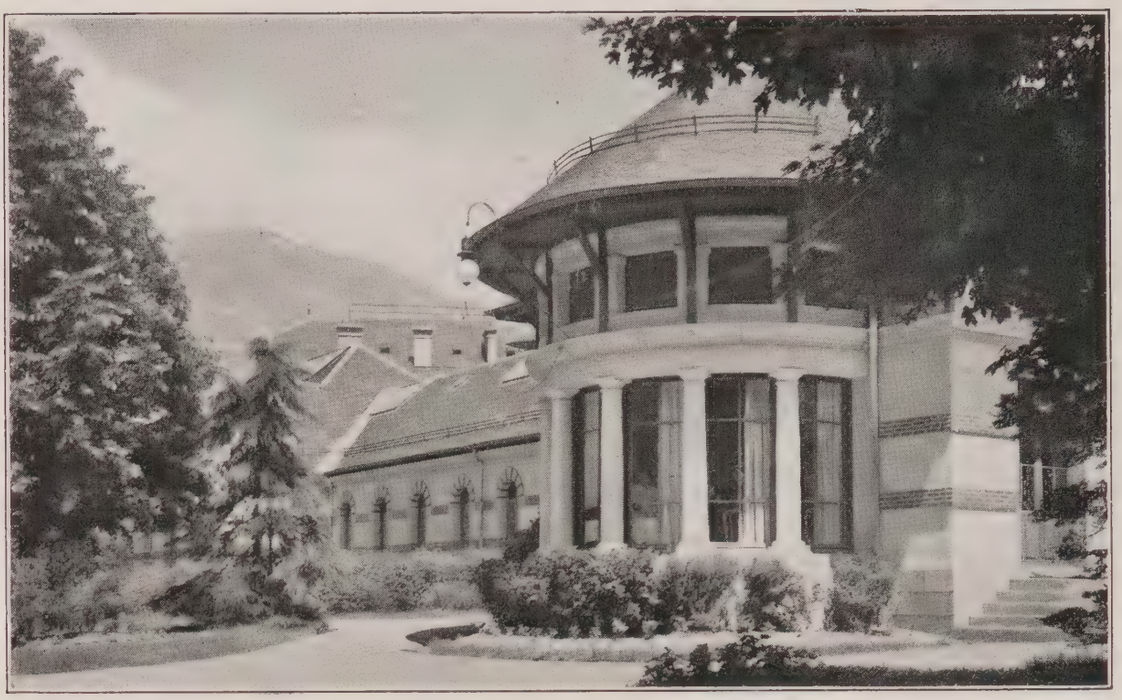
THE SPRINGS AND THE BATHING ESTABLISHMENTS. — There are three springs, the *Gontard*, the *de Mey* which have a combined output of 332 000 litres in 24 hours, and the *Guéridaud* spring which yields 43 000 litres in 24 hours. The springs and the bathing establishments are at Le Fayet.

There are two bathing establishments. The Ancien Etablissement is constructed over the Gontard and Guéridaud springs ; the waters of the latter contain sulphur. The Nouvel Etablissement is fed by the saline spring Gontard ; its hydrotherapeutic installation is singularly complete.

CHEMICAL COMPOSITION OF THE WATERS. — The waters are hot : 100°4 to 104° F. and contain 5 grammes of salts to the litre. These consist chiefly of calcium sulphate, sodium sulphate and bromides. The proportion of lithia (sulphate of lithia : 0 grm. 1020 to the litre) is very high ; indeed the waters of Saint-Gervais are probably the most highly lithiated in Europe. They also contain 0 grm. 0837 sodium silicate, which renders them soft to the touch. The spring Guéridaud also contains small quantities of hydrogen sulphide and of glairine.

PRINCIPAL INDICATIONS. — *General :* The Saint-Gervais waters are particularly indicated in the management of nervous arthritism, more especially in those cases which are associated with hepatic, renal, gouty, lithiasic, asthmatic and cutaneous manifestations. Their influence is sedative and tends to reduce congestion.

SAINT-GERVAIS-LES-BAINS (Haute-Savoie)



Bathing Establishment.

Specific. — Diseases of the skin, particularly those which demand a sedative treatment and are associated with an imperfect function of the liver, kidneys or intestines. Such are : urticaria, pruritus ; general and local prurigo, strophulus, Hebra's prurigo, Wilson's pruriginous lichen planus during eruption, lichen, acné, eczema, including both irritating seborrhoeic eczema during eruption and acute true arthritic eczema during eruption. As a general rule baths are strongly contra-indicated in these conditions, the treatment of Saint-Gervais, however is able not only to afford relief but in many instances to effect a cure. The low sulphur contents of the Torrent spring permit of its employment in the treatment of chronic skin diseases where a more highly sulphurated water would be injurious.

Rhino-pharyngitis, especially the congestive and arthritic forms.

Nervous diseases and *neurasthenia* are benefitted by the climate which is both sedative and tonic. There are facilities for appropriate hydrotherapy and dietary regimes as well as for reasoned exercise and rest.

Delicate and *degenerative conditions* in children.

CONTRA-INDICATIONS. — The tonic dermatoses of lymphatics, scrofula, tuberculosis, cardiac conditions with broken compensation, general arterio-sclerosis, diabetes maigre, melancholia.

PHYSIOLOGICAL ACTIVITY. — The baths are soothing in their effect. They exercise a direct sedative action upon the glandular elements and the nerve terminals. Taken by the mouth, the waters are diuretic, they counteract the effects of auto-intoxication and reduce congestion of the liver.

The methods of treatment include baths, atomizing douches, douche-massage, nasal-douches, vapour baths, etc. The waters are also given by the mouth.

MEDICAL MEN. — Drs. Bleicher, Gimbert, Mallein, Mélaret, Musso, Paillet, Roux.

AMUSEMENTS. — There is a splendid park of about twenty-five acres. Various mountain excursions may be undertaken. There is a railway to Chamonix and Martigny (Switzerland) and a rack and pinion railway to Mont Blanc. Guides and mules are obtainable.

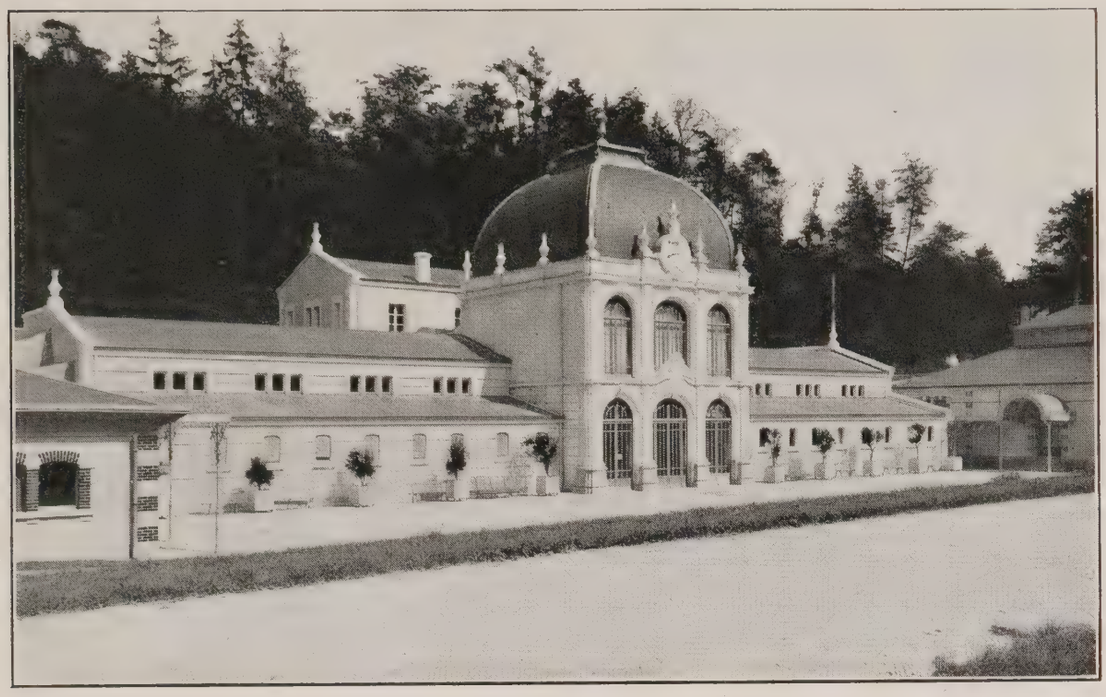
ACCOMMODATION. — There are 5 first-class hotels with hot and cold water, electric lighting, central heating, bath-rooms, etc. There are 600 bed-rooms of which 200 have private bath-rooms.

There are 8 comfortable second-class hotels with 350 bed-rooms, 9 third-class hotels with 150 bed-rooms.

There are 180 furnished houses, villas and apartments to suit all conditions.

MEANS OF ACCESS. — Saint-Gervais-les-Bains le-Fayet is the terminus of the main Paris line. It is also the starting point of the Chamonix-Martigny railway and of the rack and pinion Chemin de fer du Mont-Blanc. It is a halting place of the Route des Alpes service of motor-cars from Evian to Nice. It is twelve hours from Paris, seven from Lyons, two from Geneva, fourteen from Marseilles, four from Lausanne and twenty hours from London.

GENERAL INFORMATION. — Inquiries should be addressed to La Compagnie Générale des Eaux Minérales et Bains de Mer, 48, rue Taibout, Paris, or to Le Syndicat d'Initiative, Saint-Gervais.



The Bathing Establishment.

SAINT-HONORÉ

THERMAL SPRINGS, SULPHUR SODA AND ARSENIC

Season : 1st June to 1st October

SITUATION AND CLIMATE. — On the western slopes of the Morvan near Nevers, Autun, Le Creusot. Altitude : 984 ft. Climate of the plains modified by the vicinity of the mountains and forests ; fall of temperature at night. 302 kilometres from Paris.

THE SPRINGS AND BATHING ESTABLISHMENT. — Utilised springs : *La Crevasse ; L'Acacia ; La Marquise ; Les Romains.* Yield : 900 cubic metres per diem. Completely renovated in 1906, the bathing establishment is extremely modern and attractive. It comprises inhalation and atomisation apartments, rooms of gargling and doucheing and a swimming bath (with running water) 250 metres in extent, 82°4 F.

CHEMICAL COMPOSITION OF THE WATERS. — The springs utilised : La Crevasse, L'Acacia, 78°8 F., Marquise and Romains, 87°8 F., grouped into two sets of varying degrees and very similar mineralisation.

When they come into contact with the air, these waters give off sulphurated hydrogen, nitrogen, carbonic acid and very rare gases (neon and helium). They contain bicarbonate of lime, magnesium, sodium and potassium (0 grm. 299), alkaline sulphates (0 grm. 003), arsenate of soda (0 grm. 002), chlorides, iodides, bromides, borates, azotates, phosphates, iron and manganese.

The total residue is 0 grm. 50 per litre for the first group and 0 grm. 39 for the second group.

PHYSIOLOGICAL ACTION AND TREATMENT. — The treatment at Saint-Honoré is middly tonic and restorative and is perfectly suited to children. The waters owe their properties to the association of sulphur and arsenic. They have a selective action on the mucous membranes.

The action of the Saint-Honoré waters varies according to the dose ; sedative in small doses, it is stimulating and increases the splenetonic blood supply in large In suitable doses, the waters are sedative to the nervous system, regulate nutrition and circulation and sti-

The big Swimming-Pool with running water.

mulate the gastric functions. The arterial pressure is nearly always reduced, the atabolism retarded, the weight increased and the blood enriched. The action is profound and permanent.

The waters are used for drinking, inhalation, gargling, for atomisation, nasal and vaginal irrigation, baths and douches and for the swimming bath.

Air : The Morvan Mountains do not rise higher than 2.800 ft. and are covered with beautiful forests.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *Chronic disorders of the respiratory passages of arthritics and of children :* This is the main indication of this resort. Rhinitis, pharyngitis, laryngitis (smokers, singers, speakers), tracheitis, bronchitis, susceptibility of the respiratory system, asthma (which is much mitigated and often cured), hay fever (the moderate altitude is most favourable), inactive, slow and localised tuberculosis of the lungs without fever, intractable cases and convalescence from diseases of the respiratory organs.

2. Secondarily eczema, impetigo, endometritis, phlebitis.

3. In children, the same indications as above and small or operated adenoid growths, tracheo-bronchial adenopathy, infantile asthma and lymphatism.

CONTRA-INDICATIONS. — Diseases of the liver, the kidneys, the bladder, uncompensated cardiopathy.

MEDICAL MEN. — Drs. Breuillard, Comoy, Comte, du Pasquier, Segard, Sylvestre.

AMUSEMENTS. — Casino, theatre, concerts, magnificent park, riding, shooting, various picturesque excursions : the roads are excellent for walking, cycling, driving, riding or motoring.

ACCOMMODATION. — One first-class hotel ; hot and cold water, electricity ; bath-rooms. 80 bed-rooms.

4 second-class hotels. 180 bed-rooms.

6 third-class hotels. 130 bed-rooms.

Furnished houses and apartments.

MEANS OF ACCESS AND OF COMMUNICATION. — Station : Remilly-Saint-Honoré-les-Bains (Nièvre). Motor buses meet all trains.

GENERAL INFORMATION. — Apply to the Director de l'Etablissement Thermal or to the Syndicat d'Initiative de Saint-Honoré (Nièvre).

The Bathing Establishment.

SALIES-DE-BÉARN

COLD WATERS STRONGLY IMPREGNATED WITH SODIUM CHLORIDE AND CONTAINING BROMINE IODIDE

Season all the year round, especially from March 1st to November 30th

SITUATION AND CLIMATE. — Salies-de-Béarn is a little town with 6.000 inhabitants, equidistant (60 kilometres) from Pau and Biarritz. It is 770 kilometres from Paris and is situated upon a branch line seven kilometres from Puyoo, the junction with the Paris-Pau-Pierrefitte main line (Pyrenees Express). The climate is calm, temperate and sedative, with little or no wind. The average winter temperature is 46°4 F.

PUBLIC HEALTH. — The drinking water is good and there is a system of main drainage. The town is lighted by electricity.

THE SPRINGS AND BATHING ESTABLISHMENT. — There are two saline springs, *le Bayda* which yields 45 cubic metres per day and *le Griffon*.

The bathing establishment is situated in the public park, in the centre of the modern quarter of Salies and in the neighbourhood of the best hotels. It comprises fifty first-class bath-rooms, twenty-five of the second class and fifty of the third class. There are several rooms where general and local douches are given. Besides, it is provided with bath-rooms de luxe. The establishment is open all the year round and in the winter the first-class bath-rooms are heated.

CHEMICAL COMPOSITION OF THE WATERS. — The temperature of the water is 59° F. ; its reaction is alkaline and its specific density is very high, 15 to 20 by Baume's areometer. The contents per litre are : sodium chloride, 250 grm., magnesium bromide, 0 grm. 470 ; iodide 0 grm. 053. It contains, moreover, certain organic matters which render it soft and oily to the touch. By boiling, the mother-water may be brought to a concentration of 25, 28, 33. It then contains bromide, 10 grammes, and iodide, 1 gramme, to the litre.

PHYSIOLOGICAL ACTIVITY. — The waters of Salies tend to accelerate the nutritive exchanges and to increase the urinary output. There is a marked stimulation of the nitrogen exchanges and an increase in the oxydation of the waste products resulting from imperfect assimilation of albumenoids. The waters have a general tonic action ; they promote nutrition and they exercise a stimulating effect upon the central nervous system.

The mother-waters, containing bromium iodide, have a sedative effect upon the nervous system. They also promote absorption and are indicated in all chronic inflammations with plastic exudation.

SALIES-DE-BÉARN (Basses-Pyrénées)

Old houses on the bank of the Saleys.

PRINCIPAL INDICATIONS. — Salies-de-Béarn is essentially a spa for women and children. The conditions treated with advantage are :

Lymphatic conditions ; scrofula, surgical tuberculosis, suppurating or otherwise ; cold abscess ; strumous ulcers ; suppuration of the ganglia and bones ; epididymic tuberculosis

Adenoid growths ; cervical, trachaeo-bronchial and mesenteris adenitis ; tuberculosis of the male and female genital and urinary organs ; tendinous synovitis ; tubercular osteo-arthritis, white swelling ; coxalgia ; Pott's disease ; tubercular rheumatism ; Poncet's tubercular inflammation ; rickets ; various arthritic conditions.

Primary anaemia (chlorisis) and secondary anaemia (convalescence after infectious disease or haemorrhage).

Amenorrhae, dysmenorrhoea, metritis, uterine catarrh, uterine atony, various factors tending to cause sterility or abortion, perimetritis, parametritis, chronic salpingo-ovaritis, uterine prolapse, misplacement, uterine fibroma.

CONTRA-INDICATIONS. — Asthma, acute exacerbations, febrile or otherwise, cardiac lesions with broken compensation, malaria during the attack, avowed pulmonary tuberculosis, cancer.

MEDICAL MEN. — Drs. Belot, Collard-Huard, Coustère, David, Dufourcq, Laclau, Felix Lafont, Matton, Ortal, Raynaud.

AMUSEMENTS. — Salies is a typical little old Béarnais town. Henri IV of France and his mother Jeanne d'Albret stayed there.

There is a casino, theatre, orchestra, tennis court.

The walks and excursions are numerous and varied. The best known are those to : Sauveterre, Bellocq, Escos, Bidache (formerly the seat of the dukes de Grammont), Peyrehorade, Orthez. Five good roads run from Salies into the Basque country, to Mauleon, Saint-Palais, Tardets, Hendaye, Fontarabie, Saint-Sebastian, Pau, Lourdes, the valleys of the torrents Lavedan and Ossau.

ACCOMMODATION. — There are 3 first-class hotels comprising 300 bed-rooms, of which 40 have private bath-rooms. These hotels have electric lighting and hot and cold water.

There are 6 comfortable second-class hotels with 300 bed-rooms.

There are 5 third-class hotels, modest in character, with 150 bed-rooms.

And there are 50 furnished villas and apartments.

MEANS OF ACCESS. — Salies-de-Béarn is a railway station on the Chemin de fer du Midi. There are through carriages to and from Paris.

GENERAL INFORMATION. — Inquiries should be addressed to La Direction de l'Etablissement Thermal or to the Comité d'Initiative de Salies-de-Béarn.

The Bathing Establishment.

VALS-LES-BAINS

WATERS CONTAINING SODIUM BICARBONATE AND FERRO-ARSENIC COMPOUNDS

Season : 15th May to 1st October.

SITUATION AND CLIMATE. — Altitude 820 ft. ; situated in the midst of the wonderful Vivarais district. Temperate climate. 4.500 inhabitants.

SANITATION. — Municipal office of sanitation, drains, electric light. Work is at present being carried out to assure the purity of the water supply.

THE SPRINGS. — Vals is one of the few spas which is characterised by a group of springs containing sodium-bicarbonate in varied proportions from a very weak mineralisation to a very strong one (from 1 to 9 grammes of sodium-bicarbonate per litre).

Alkaline and arsenical treatment can also be combined by the employeent of the waters of the Dominique spring.

The Bathing Establishment contains forty apartments, two douche-rooms and a room for naso-pharyngeal atomization, irrigation and carbonic-acid inhalations.

CHEMICAL COMPOSITION OF THE WATERS. — A first group consists of : 1. *Waters containing bicarbonate of soda slightly mineralised,* from 1 to 3 grammes (Vals Saint-Jean).

2. *Waters containing bicarbonate of soda strongly mineralised,* from 4 to 9 grammes (Vals Précieuse).

Besides the bicarbonate of soda (the predominating element) these waters contain other very interesting bodies : bicarbonate of lithium, bicarbonate of iron, sulphate of soda, magnesium, arsenic, free carbonic acid varying in quantity from 1 to 4 grammes.

These waters are distinctly radio-active. The Dominique waters constitute an essentially different group, they are alkaline, contain no gas and are characterised by the presence of an alkali-metal combination of ferrous-arsenic at a strength of 20 milligrammes to the litre (approximately 1 1/2 grains to the gallon).

PHYSIOLOGICAL ACTION AND TREATMENT. — 1. *On the stomach :* stimulate and regulate the gastric secretion, increase the tonicity of the muscular coats, and stimulate their contractibility.

2. *On the liver :* Cholagogues, they modify the contents of the liver, and by this mean combat catarrh of the biliary ducts.

General view of the Valley.

3. *General action on nutrition :* in the sense of accelerating and regulating the metabolism.

The treatment consists in the drinking of the mineral waters, mineral water baths, mud baths of ferrous arsenic mud from the Dominique spring, various douches, vapour baths, treatment with the carbonic acid gas by inhalation, mineral enteroclysims.

PRINCIPAL THERAPEUTIC APPLICATIONS. — *Gastric disorders.* Various forms of dyspepsia both hypo and hyper-secretion, dilatation, gastro-enteritis.

Disorders of the liver. Congestion, dyspeptic or malarial in origin, early cirrhosis, lithiasis

General disorders of nutrition. Gout, gravel, diabetes, functional albuminuria without nephritis, chlorosis, malarial anaemia.

CONTRA-INDICATIONS. — Cancer or ulcers of the stomach, advanced cirrhosis, febrile pulmonary tuberculosis.

MEDICAL MEN. — Drs. Bressot, Chabannes, David.

AMUSEMENTS. — Casino, theatre, many large parks, woodland paths, concerts, in the park.

Vals is a splendid centre for touring. It is situated in the heart of Vivarais, which varying in altitude from 164 to 5.577 ft., includes every climate and every feature; grottoes, gorges, lakes, volcanoes, immense basalt rocks unique in Europe, high plateaux, forests.

ACCOMMODATION. — One first-class hotel. Electricity, central heating, hot and cold water, 60 bed-rooms, 4 of which have private bath-rooms.

4 second-class hotels, comfortable, 250 bed-rooms.

2 third-class hotels, more modest, 60 bed-rooms.

Furnished houses, apartments.

MEANS OF ACCESS. — P.-L.-M. line from Lyons to Nimes via Le Teil, branch line from Le Teil to Alais. Paris-Marseilles line, the rapide stops at Valence ; the express at Montélimar. Motor car service (with through registration of luggage) from Montélimar to Vals (50 kilometres distance).

Excursion services by P.-L.-M. auto-cars from Vals to Vichy via the Gerbier de Jonc (altitude 5.084 ft.), the lake d'Issarlès, Le Puy and La Chaise-Dieu.

GENERAL INFORMATION. — Apply to the Syndicat d'Initiative du Vivarais, at Vals-les-Bains (Ardèche).

General view.

VERNET-LES-BAINS

HOT AND WARM SPRINGS CONTAINING SODIUM SULPHIDE, RADIO-ACTIVE

(Resort frequented at all times : Summer and Winter seasons.)

SITUATION AND CLIMATE. — Vernet-les-Bains is situated at an altitude of 2.080 ft. at the foot of the Canigou, at the eastern extremity of the Pyrenees and 17 hours from Paris. It is encercled by mountains and sheltered from winds.

The mean winter temperature is 46°6 F. ; summer, 64°4 F.

The characteristics of the climate are the dryness of the air and the purity of the atmosphere.

The climate is tonic and sedative.

URBAN SANITATION. — Drinking water. Drainage system. Electric lighting.

THE SPRINGS AND BATHING ESTABLISHMENTS. — There are ten springs, varying in temperature from 59° to 176° F.

Two bathing establishments, supplied with the latest apparatus for hydrotherapy. These buildings communicate with the hotels by corridors which have central heating. This is a great advantage to winter visitors.

The *Bains des Commandants* include a large swimming pond at a temperature of 93°2 F., beautiful baths, douche rooms, under-water massage, rooms for vapour baths, enteroclysis, under water douches, and for atomisation, inhalation and nebulisation.

The *Thermes Mercader* are tiled throughout which ensures a perfect cleanliness difficult to maintain in sulphur baths. There are baths of all kinds, including douches, under-water massage rooms, hip-baths, and foot baths, radio-active baths. A mechanotherapic room adjoins the establishment.

CHEMICAL COMPOSITION OF THE WATERS. — All the springs contain sodium sulphide. They are divided into two groups :

1. Group on the right bank of the Cady (the Mercader baths) ; 2. Group on the left bank (The Commandants baths). Their sulphur content varies from 9 to 19 milligrammes to the litre ; they also contain sodium, alkalines, silicates and are rich in glairine.

The waters of the Thermes Mercader are remarkable for their high radio-activity, one spring reaching as much as 15°5 units, thus making Vernet one of the foremost radio-active resorts of France.

VERNET-LES-BAINS (Pyrénées-Orientales)

Bathing Establishment.

PHYSIOLOGICAL ACTION. — The action is that common to all sulphur waters, it stimulates the nutrition and metabolism. Its action is slightly modified by the presence of sulphites ; it has a selective action on the mucous membrane of the respiratory system, the articular serosa and the skin.

Added to this is the sedative action of the climate, the mild winter makes it possible to undergo the sulphur cure at all seasons.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. Rheumatismal, gouty and traumatic *arthropathy*, sequelae of old fractures.

2. *Disorders of the respiratory system :* simple chronic or hypertrophic rhinitis, granular pharyngitis, arthritic laryngitis, speakers' laryngitis, bronchial catarrh with or without bronchial dilatation or emphysema, the moist forms of asthma.

3. *Cutaneous disorders :* Dry and weeping eczema, acne, chronic urticaria, impetigo, pityriasis, syphilitic conditions benefit by the association of intensive treatment and the sulphur cure.

4. *Neurasthenia, neurosis* (hysteria, hysteroneurosis).

5. Uterine and abdominal disorders.

6. Anaemia, convalescence, and vesical disorders.

CONTRA-INDICATIONS. — Tuberculosis of the lungs is not treated.

CONSULTANT. — There is a medical director attached to the spa.

ACCOMMODATION. — 2 first-class hotels, hot and cold water, bath-rooms, electric light, central heating, lift ; 130 bed-rooms, 35 with private bath-rooms.

1 second-class hotel, comfortable, with 80 bed-rooms.

1 third-class hotel, more modest, with 50 bed-rooms.

Furnished houses, apartments and villas.

AMUSEMENTS. — Casino, club, comic-opera, orchestra, gaming-table, reading rooms, billiard-rooms, library, gymnasium. Tennis, croquet, horse-show, fair, children's balls, park.

Beautiful excursions. Canigou, the Abbey of Saint-Martin-du-Canigou, founded in the 11th century (byzantine style), Cerdagne, Côte Vermeille.

GENERAL INFORMATION. — Apply to the Société Thermale de Vernet-les-Bains, Vernet-les-Bains (Pyrénées-Orientales).

General view.

ARGELÈS-GAZOST

WATERS CONTAINING SODIUM-SULPHIDE, IODIDE AND BROMIDES

Season from 1st July to 1st October. — Winter Cure.

SITUATION AND CLIMATE. — Altitude : 1.490 feet. This spa is noted for its healthy and mild climate as well as its waters. It is situated at the opening of a broad and sunny valley in the Hautes-Pyrénées. 1.400 inhabitants. 23 trains daily (Direct sleeping cars Paris Quai d'Orsay-Argelès-Pierrefitte).

CHEMICAL COMPOSITION OF THE WATERS. — Grande Source (55°4 F.) and Source Noire (59° F.) Sulphur waters containing sodium chloride, bromide and iodide and giving off sulphuretted hydrogen.

PHYSIOLOGICAL ACTION. — The action of the cure at Argelès is partly due to the mildness of the climate, the moderate altitude, the stillness of the atmosphere and the absence of wind and dust, all of which combine to produce a peculiarly *sedative effect*. The action of the waters is tonic and restorative, detergent and healing ; these elements combining marvellously with the climate.

PRINCIPAL THERAPEUTIC INDICATIONS. — The waters have a very decisive and lasting action on all morbid conditions arising from lymphatism or inflammation of the mucous membrane, a tonic effect on the tissues and regulate the circulation of the blood.

Respiratory passages : Laryngitis, pharyngitis, after effects of influenza, bronchitis and whooping-cough. *Utero-ovarian organs :* Metritis, endo-metritis, peri-metritis, anaemia and nervous conditions secondary to genital disorders in women. *Cutaneous conditions :* Dermatosis, ulcers, wounds, fistulas and osteitis. *General constitutional diseases :* Rheumatism, sciatica, arthritis, phlebitis. These waters are also of great value in the treatment of gastric and intestinal dyspepsia associated with herpetism. *Nervous diseases :* Neurasthenia, overstrain, neurosis, neuritis, neuralgia.

ESTABLISHMENTS. — 1. *The Bathing Establishment* is a well-appointed building furnished wth every convenience for hydrotherapy and balneotherapy, the treatment being given under rigorous hygienic conditions in light airy and spacious rooms.

2. *Institute of Physical Therapeutics.* (Director Dr. Grenier de Cardenal) Orthopaedics, mechanotherapy, electricity, hydrotherapy, sun-baths, Swedish remedial exercises. Treatment for nervous diseases and diseases of nutrition.

3. *Nursing home* with treatment by diet for nervous subjects (Villa Labéda — annexe of the Institute).

4. *Orthopaedic clinic* founded by Dr. Calot (of Berck) Treatment of deformities and minor deviations and all diseases of the bones, the articulations and the glands.

5. *Convalescent home* (Villa " La Prairie " Dr. Pérus).

MEDICAL MEN. — Drs. Abadie, Bergugnat, Grenier de Cardenal, Pérus.

AMUSEMENTS. — Tennis, Golf, Park, Casino and Walks.

Touring Centre. — Gavarnie, Cauterets, Lourdes ; Route des Pyrénées, Saint-Savin, Lac d'Estaing, Vallée d'Azun ; Pouey-Laun.

ACCOMMODATION. — Several comfortable second-class hotels, 150 bed-rooms. Third-class hotels, more modest, 100 bed-rooms. Pensions, furnished villas.

GENERAL INFORMATION. — Apply to the Director, Etablissement Thermal, or to the Syndicat d'Initiative at Argelès-Gazost, Hautes-Pyrénées (English spoken).

General view.

BARÈGES AND BARZUN

THERMAL WATERS CONTAINING SODIUM SULPHATE

Season 15th May to 1st November.

SITUATION AND CLIMATE. — Situated in the Pyrenees; altitude of 3.680 ft. About 800 kilometres from Paris and is reached by way of Pierrefitte and Luz. From Luz to Barèges is twenty minutes by motor bus. Mountain climate with the maximum of sunshine.

CHEMICAL COMPOSITION OF THE WATERS. — The waters are warm : the Troy spring, 68° F., the Tambour spring, 113° F. They owe their efficacy to the presence of sodium monosulphide : 0 grm. 0408 to the litre. They are *stable sulphur waters* and do not bleach on contact with the air. White or grey filaments are present, formed from *baregine*, due to the activity of sulpho-bacteria. Yield 300.000 litres per day.

PHYSIOLOGICAL ACTIVITY. — Whether employed as baths or douches or taken by the mouth, the waters have a direct effect in stimulating the vaso-motor system. Ulcerated surfaces become greyish in colour and are gradually covered with fleshy granulations. Cicatrization of large wounds takes place, foreign bodies and sequestra become loosened and are eliminated. There is an increase in the amount of urine and respiration is enhanced.

PRINCIPAL INDICATIONS. — In children, the *lymphatic conditions*, whether of the ganglia, skin or mucosa. — *Articular rheumatism*, whether infectious, nodular or gonorrhoeal. — *Syphilis :* Intensive methods. — *War wounds and affections of the bones.* — Sequestra, fistulae, foreign bodies, osteomyelitis and suppurating bony tuberculosis. — *Infantile paralysis :* Certain skin diseases, notably *psoriasis*, eczema.

BARZUN possesses nitrogenous waters which are peculiarly soft and oily to the touch, 84° F. They are useful in all excitable conditions and particularly so in feminine ailments.

THE SPRINGS AND THE BATHING ESTABLISHMENTS. — 1. The bathing establishment, *Les Thermes*, is supplied by fourteen sulphur springs. Immersion baths and douches by simple affusion are characteristic of the Barèges treatment. — 2. *The bathing establishment of Barzun* supplied by a sulphur spring strongly charged with barégine, has fourteen bath and douche-rooms and is situated about 5.000 metres from Barèges.

MEDICAL MEN. — Drs. Cruzel, Fourment, Péré, Robine.

AMUSEMENTS. — The social life of Barèges is extremely simple. The absence of casino and theatre lends an added charm to receptions at the hotels and villas and these have an intimate quality which it would be difficult to rival elsewhere. — Barèges is the starting point for the Pic-du-Midi, Tourmalet and Néouvielle. There are numerous easy walks.

ACCOMMODATION. — 2 comfortable second-class hotels with 100 bed-rooms. 30 boarding-houses and 12 furnished villas.

GENERAL INFORMATION. — May be obtained from M. Gilbert, la Direction des Thermes, Barèges.

The Bathing Establishment.

BOURBON-L'ARCHAMBAULT

HOT SPRINGS CONTAINING CHLORIDE, SODIUM, VARIOUS BICARBONATES, IODINE AND BROMIDE SALTS.

Season 15th May to 1st October.

SITUATION AND CLIMATE. — 339 kilometres from Paris, chief town of its canton in Allier. 4.000 inhabitants. Altitude : 935 ft. Hilly and picturesque country, rich vegetation. Mild and temperate climate.

CHEMICAL COMPOSITION OF THE WATERS. — 1. *Hot springs*, 127°4 F. Yield : 1.200 cubic metres per diem. Total mineralisation : 4 grammes per litre. Chloride of sodium, mixed bicarbonates, bromide and fluoride of sodium, arsenic, lithium, copper, free carbonic acid, nitrogen, slight aeration, radio-active : helium, neon, argon, krypton, xenon.

2. *Jonas Spring*, cold, chalybeate, used as a drink.
3. *Saint-Pardoux spring*, cold, gaseous, acidulated, containing silicate, table-water.

PHYSIOLOGICAL ACTION. — Owing to their temperature and chemical composition, the waters are tonic, stimulating to all the functions of nutrition, and resolve plastic exudates ; used as a drink they stimulate the appetite and produce most marked diuresis and diaphoresis assisting the elimination of waste products. They are mostly used for baths, douches and vapour baths.

PRINCIPAL THERAPEUTIC INDICATIONS. — *Arthritic diathesis :* Rheumatism in all its forms, sequelae of acute rheumatism, hydrarthrosis, articular and periarticular lesions, synovitis, blenorrhagic rheumatism, recent lesions of the endocardium and pericardium. *Progressive and deforming nodular rheumatism.* Atonic gout, arthritic diabetes, neuralgia and neuritis, sciatica.

Paralysis : Organic paralysis, sequelae of hemiplegia, peripherial paralysis, polyneuritis, paraplegia, tabes, infantile paralysis.

Surgical conditions : Wounds received in war, sequelae of trauma, stiffness, sequestra, osteo-arthritis, gynecological conditions, syphilis.

CONTRA-INDICATIONS. — Acute conditions, uncompensated cardiac lesions.

BATHING ESTABLISHMENT. — Splendid building lately constructed by the State, It comprises 64 bath-rooms, swimming baths, general and local douches, local vapour baths, atomisation.

MEDICAL MEN. — Drs. Lacouture, Litaud, Mansillon, Regnault, Triger.

AMUSEMENTS. — Casino, theatre, reading-rooms, gaming-rooms, orchestra, easy excursions, fishing.

ACCOMMODATION. — 7 second-class hotels, comfortable, with 300 bed-rooms.
3 third-class hotels, less pretentious, with 350 bed-rooms.
Furnished houses and boarding-Houses.

GENERAL INFORMATION. — Apply : Comité d'Initiative de Bourbon- l'Archambault.

The Bathing Establishment.

BOURBONNE-LES-BAINS

VERY WARM CHLORURATED SPRINGS, MODERATE QUANTITY OF SODIUM, SULPHUR, BROMINE AND IODINE

Season April 15th to October 15th.

SITUATION AND CLIMATE. — Town of 3.000 inhabitants, built on a prominence of the Faucilles at the base of the Langres plateau sheltered by wooded hills. Temperate and pleasing climate. Six hours from Paris.

CHEMICAL COMPOSITION OF THE WATERS. — Temperature 146° F. Complex chlorurated water (7 grm. 33 of mineralisation per litre) forming an accurate physiological and isotonic solution. Its principal elements are : sodium chloride 5 grm. 20 ; potassium chloride, magnesium, lithium, sodium bromide, etc.

PHYSIOLOGICAL ACTION AND TREATMENT. — Stimulation of the functions of nutrition by external treatment. Taken internally, the waters assist assimilation and increase the amount of urea excreted. Stimulation of the vaso-motor mechanism, and regional therapeutic hyperaemia, re-absorption of exudates, liberation of adhesions and general increase of biological activity.

The tonic and sedative waters of Bourbonne are suitable to weak constitutions and irritable temperaments, nerve cases of the lymphatic and arthritic types.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *General diseases :* General debility, nervous exhaustion, chronic gout, and rheumatism, sequela of acute articular rheumatism ; infectious, nodular and deforming rheumatism ; diabetic asthenia. 2. *Special indications :* Sequela of wounds, sprains, dislocations and fractures, bone lesions, articular and periarticular lesions, muscular atrophy ; neuralgia, neuritis, paralysis (infantile paralysis ; polyneuritis, radiculitis) which determine the impotency of the limbs.

CONTRA-INDICATIONS. — All acute conditions, tuberculous ulcerations, myocarditis, aneurysm, congested atheroma, cancer.

THE SPRINGS AND BATHING ESTABLISHMENT. — The mineral waters rise into fourteen wells fifty metres in depth ; they yield 400 cubic metres per diem.

The luxurious bathing establishment is the property of the State.

MEDICAL MEN. — Drs. Bridaut, Gay, Joyeux, Molly, Testevuide.

AMUSEMENTS. — Casino, theatre, park, concerts, card-rooms, reading-room, walks and excursions.

ACCOMMODATION. — One first-class hotel, 100 bed-rooms, hot and cold water, bath-rooms, lift, central heating.

3 second-class hotels, comfortable, 140 bed-rooms.

2 third-class hotels, more modest, 70 bed-rooms.

GENERAL INFORMATION. — Apply to the Director, Etablissement Thermal.

General view.

CHALLES-LES-EAUX

WATER STRONGLY IMPREGNATED WITH SULPHUR AND SODIUM CONTAINING ALKALINES, IODIDES, AND BROMIDES

Season from 15th of May to 1st October.

SITUATION AND CLIMATE. — In a pretty Savoy valley. Altitude : 918 ft. 6 kilometres by tramway from Chambéry (station of Chambéry-Challes-les Eaux), 20 kilometres from Aix and 595 kilometres from Paris. Climate temperate and tonic, beautifully wooded, magnificent views of the mountains and plains.

CHEMICAL COMPOSITION OF THE WATERS. — A single cold spring, 50° F. yielding 6,500 litres per day. Strongly impregnated with sulphur (monosulphide, 0 grm. 53 to the litre) containing small quantities of iodides and bromides. The alkaline contents are high (sodium bicarbonate, 1 grm. to the litre), this renders the water extremely easy of digestion, even in large doses.

PHYSIOLOGICAL ACTIVITY. — The treatment is a drastic one and demands careful watching and gradation. In the case of lymphatics and lethargics it has a stimulant and tonic action. In arthritic cases, where the nutritional processes are slow, it speeds up intra-organic combustion and reduces auto-intoxication. Where the respiratory passages are affected, the action is antiseptic, due to the freeing of hydrogen sulphide, and the mucosa of the air-passages become less sensitive.

PRINCIPAL INDICATIONS. — Chronic affections of the respiratory passages more particularly of the nose, throat and ears (deafness of nasal or tubal origin) ; urgent specific symptoms (intensive mercurial treatment) ; obstinate dermatoses ; respiratory and cutaneous arthritic manifestations.

CONTRA-INDICATIONS. — Cardiac conditions with broken compensation, nervous excitability, irritable congestive conditions, pulmonary tuberculosis.

THE BATHING ESTABLISHMENT has been recently enlarged. Perfectly arranged, it contains a large hall with drinking-fountain, atomising-rooms, 2 inhalation-rooms, 2 rooms for nasal irrigation, 2 gargling-rooms, 25 bath-rooms, 2 rooms for local douches and 2 hydro-therapeutic halls.

MEDICAL MEN. — Drs. Girod, Mathieu, Vincent.

AMUSEMENTS. — The facilities for open-air treatment are excellent. There are charming walks. Challes is a good centre for excursions and for circular tours by motor-car in Savoy and the Dauphiny. There is a Casino, park, theatre, concerts, etc.

ACCOMMODATION. — One comfortable first-class hotel, with 100 bed-rooms, 12 which are provided with bath-rooms.

10 more modest second and third-class hotels, with 200 bed-rooms.

Furnished villas.

GENERAL INFORMATION. — Inquiries should be addressed to Le Syndicat d'Initiative at Challes and to La Direction de l'Etablissement Thermal, Challes.

The Terrace and the Lake.

ENGHIEN-LES-BAINS

COLD SPRINGS OF CALCIUM SULPHIDE
AND SULPHURATED HYDROGEN

Season : April to October.

SITUATION AND CLIMATE. — Enghien-les-Bains is a town of 5.000 inhabitants, 12 kilometres north of Paris. It is built on the southern slope of Montmorency hill on the borders of a lake covering 22 acres. Soft and temperate climate.

CHEMICAL COMPOSITION OF THE WATERS. — Thirteen springs, nine of which are utilised at the bathing establishment. Yield : 700.000 per diem. Cold water varying from 50° F. to 56° F. with an odour of hydrosulphuric acid. Chemical composition : free hydrosulphuric acid (0 grm. 018) ; nitrogen (0 grm. 010) ; free carbonic acid (0 grm. 248) ; calcium sulphide (0 grm. 16) ; magnesium sulphide (0 grm. 010) ; sulphate of magnesia (0 grm. 105) ; sulphate of lime, subcarbonate of lime, of magnesia, of silica. The sulphuretted hydrogen content, according to the Dupasquier apparatus varies from 85°75 F. (Deyeux) to 130°70 F. (Lac).

PHYSIOLOGICAL ACTION. — The waters of Enghien act on the system causing a general increased activity of the functions (stimulating action) and have an elective action on the respiratory system and the skin.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *Diseases of the respiratory system :* Tonsillitis, pharyngitis, laryngitis, bronchitis, early pulmonary tuberculosis ; 2. *Diseases of the skin :* Eczema, acne, prurigo, lichen, psoriasis ; 3. *Diseases of the uro-genital system :* Cystitis, urethritis, metritis ; 4. *Distrophia and dyscrasia :* Chronic rheumatism, anaemia, chlorosis, syphilis.

CONTRA-INDICATIONS. — Acute affections : Diseases of the heart and the aorta, arteriosclerosis, gout, cancer, advanced tuberculosis.

THE BATHING ESTABLISHMENT. — Rebuilt in 1908. The various services are arranged around a large comfortable mirrored hall, its slightly sulphurous atmosphere gives the patients the opportunity of completing their cure in comfortable surroundings. There are eighty bath-rooms, six apartments for douches, four rooms for inhalation and atomisation, vapour baths, swimming baths, installations for electric hydro-sulphuric baths. A second establishment for hydrotherapy has been built in the grounds of the bathing establishment.
MEDICAL MEN. — Drs. Banvillet, Beyrand, Fricker, Helary, Saury, Thym, Weill Spire.

AMUSEMENTS. — Casino built in 1908, club, ball-room, theatre, lake, horse-racing. 152 trains daily between Paris (Nord) and Enghien (10 minutes). Trams.

ACCOMMODATION. — 4 second-class hotels, comfortable, with 90 bed-rooms.
2 third-class hotels more modest, with 20 bed-rooms. 5 boarding-houses.

GENERAL INFORMATION. — Apply to the Directeur, Etablissement Hydrominéral, Enghien-les-Bains (Seine-et-Oise)

The Park.

EVAUX-LES-BAINS

HOT AND WARM RADIO-ACTIVE SPRINGS, CONTAINING SULPHATE OF SODIUM

Season 15th May to 15th October

SITUATION AND CLIMATE. — Altitude : 1.495 ft. 3.500 inhabitants Air pure and dry, no fogs. Mean temperature in July and August : 64°4 to 68° F. On Paris-Mont-Dore line. Resort for climatotherapy as well as hydrotherapy : climate sedative and tonic, sunny exposure

CHEMICAL COMPOSITION OF THE WATERS. — 30 mineral springs with temperatures varying from 57°2 to 140° F. Mineralisation : 1 grm. 70 per litre. Predominance of sulphate of soda (0 grm. 86). Bicarbonate of soda (0 grm. 25). Chloride of sodium (0 grm. 15). Considérable yield of gas : nitrogen, 85 %. Radio-active.

PHYSIOLOGICAL ACTION. — These waters exert a beneficial vaso-motor action manifesting itself by an improvement on the general nutrition, regulation of the circulation, more marked elimination of toxic products. General action sedative and recuperative.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *Diseases due to reduced nutrition:* arthritism, neuroarthritism, uric diathesis, rheumatism gout. 2. *Nervous diseases :* Neuralgia (sciatica), neuritis, polyneuritis, infantile paralysis, paralysis following intoxications or of cerebral or myelopathic origin, neurasthenia, neurosis (when it is a question of simultaneous sedative and tonic treatment), spasms, contracture, tremor. 3. *Diseases of women :* Dysmenorrhoea, amenorrhoea, sterility, congestive metritis and nervous erithism, disorders of the menopause, resolution of annexial exudates, sequelae of pelioperitonitis. 4. *Neuro-arthritic children :* Disorders of growth, lymphatism debility. 5. *Gastro-intestinal disorders :* Abdominal algesia connected with irritation of the solar plexus. Muco-membranous enteritis with spasmodic element. 6. *Valvular cardiopathy* allied to acute articular rheumatism 7. *Diseases of skin.*

CONTRA-INDICATIONS. — Tuberculosis, cancer, chronic uncompensated cardiopathy, Bright's disease, true angina pectoris.

THE BATHING ESTABLISHMENTS. — There are the remains of ancient Roman baths, the Caldarium, Tepidarium, Frigidarium, Vaporium. The present establishment is in the immediate vicinity of the springs and includes fifty bath-rooms, douches, complete service of gynecology, swimming bath, vapour baths, massage.

MEDICAL MEN. — Drs. Darfeuille, Gruzu, Lepage, Perron.

AMUSEMENTS. — Easy excursions : Gold mines of Châtelet, Cher dam, valleys of Tardes and Cher, etc.

ACCOMMODATION. — 6 second-class hotels, comfortable, with 260 bed-rooms.
5 third-class hotels, more modest, with 100 bed-rooms.
Furnished houses and apartments villas.

GENERAL INFORMATION. — Apply to the Director de l'Etablissement Thermal, Evaux (Creuse), or to the Syndicat d'Initiative.

The Bathing Establishment.

HAMMAM R'IRHA

VERY HOT CALCIUM SULPHUR SPRINGS, CONTAINING IN ADDITION A LITTLE CHLORIDE AND BICARBONATE

Winter season, from 1st December to 31st May. Altitude : 1.600 ft.

SITUATION AND CLIMATE. — Hammam R'Irha lies in the Zaccar hills, close to immense pine forests and only 12 miles from the Mediterranean. It is far removed from crowds and its climate, tempered by the sea and the pines, has remarkable tonic and sedative qualities. The conditions there are peculiarly suitable for rest and climatotherapy.

CHEMICAL COMPOSITION OF THE WATERS. — Two categories : 1. *Warm waters*, 94°8 to 161°5 F., perfectly limpid. The mineralisation reaches 2 grm. 50 per litre. These are hyperthermal, calcium sulphide waters with some chloride and bicarbonates. 2. *Cold waters*, gaseous, containing sulphur, calcium and iron.

PRINCIPAL THERAPEUTIC INDICATIONS. — 1. *Warm waters : Medical and surgical affections of the limbs :* dry arthritis, sprains with effusion, secondary conditions of wounds, muscular atrophy, synovitis, chronic rheumatism and gout : various forms of neuralgia, sciatica. *Women's diseases :* Uterine congestion, metritis, disorders of the menopause. *Neurosis :* Neurasthenia, hysteria. *Dermatosis :* Eczema, psoriasis, ichthyosis.
2. *Cold waters :* Disorders showing arthritic diathesis. Biliary or renal lithiasis, gout, glycosuria, catarrh of the urinary passages, arteriosclerosis, all arthritic manifestations.

PHYSIOLOGICAL ACTION. — The cure at Hammam R'Irha increases the activity of the excretory organs, reduces the arterial pressure, promotes the organic changes and exercises an evident tonic and sedative effect on the nervous system.

BATHING ESTABLISHMENT. — The very modern thermal establishment includes two large swimming baths, each of 50 cubic metres, with running water. The temperature of one is 100° F., of the other 107°5 F. Small private swimming baths, bath-rooms, massage douches, vaginal douches, Vichy douches and massage, massage under water. Turkish baths. *Electrotherapy, phototherapy, hot air douches.*

MEDICAL MEN. — Dr. Farez.

AMUSEMENTS. — Park and forest of over 3.600 acres with preserves, croquet, tennis, shooting, skating rink, cinema. Magnificent motor excursions. Carriages of all kinds, saddle-horses, mules, donkeys, Arab fêtes, fantasias, native dances, etc.

ACCOMMODATION. — 1 second-class hotel, comfortable with 100 bed-rooms (open 1st December to 1st May).
1 third-class hotel, less pretentious, with 30 bed-rooms.

GENERAL INFORMATION. — Apply to the Directeur, Etablissement Thermal, or to the Director of the Grand Hotel, Hammam R'Irha ; or the Société des Thermes d'Hammam R'Irha, 30, boulevard Séguin, at Oran.

A Gallery of the Bathing Establishment.

NANCY-THERMAL

WEAK SODIUM CHLORIDE WATERS, WITH SOME LITHIUM BROMINE AND MAGNESIUM

Season : from 15th May to 1st October

SITUATION AND CLIMATE. — Few people do not know Nancy, the capital of Lorraine, a charming town with 120.000 inhabitants. Nancy-Thermal is situated in the newest part of Nancy, the highest and healthiest quarter : it lies near the magnificent Sainte-Marie park. The Lorraine climate is dry and healthy, from May to October.

THE SPRING AND THE BATHING ESTABLISHMENT. — Thermal artesian spring, 96°4 F., having an abundant yield (2.000 litres a minute). The thermal establishment comprises large swimming baths and private baths with running water, massage in water, vapour baths, mechanotherapy, electrotherapy, douche rooms, etc.

CHEMICAL COMPOSITION OF THE WATERS. — Total mineralisation : 1 gr. 41. Chloride of sodium predominates (0,87), associated with salts of lime, magnesium and lithium (0,0029), an appreciable quantity of alkaline bromides (0,017), traces of manganese, boron and alumina (Gautier and Moureu).

Numerous rare metals : aluminium, antimony, silver, arsenic, bismuth, cobalt, copper, tin, gallium, germanium, glucinium, manganese, molybdenum, platinum, lead, titanium, vanadium, zinc. Rare gases : argon, crypton, xenon, neon, helium. Radio-activity : 0,12 milligrammes-minutes (Danne).

PHYSIOLOGICAL ACTION AND TREATMENT. — Slightly mineralised, the waters are digestive and very diuretic. External treatment by baths, the most characteristic action of which is a sedation of the pain in all forms of arthritis. Treatment by ingestion (500 to 800 grammes).

PRINCIPAL THERAPEUTIC INDICATIONS. — Arthritis in all its forms and in particular painful manifestations of this diathesis : articular, muscular and tendinous rheumatism, chronic rheumatism, gout, lumbago, sciatica. Results of fractures, arthralgia, articular stiffness following sprains and dislocations, phlebitis, diseases of the kidneys and liver.

MEDICAL MEN. — There is no doctor especially attached to the establishment.

AMUSEMENTS. — Several places of historical interest in the old quarter of the town, once the city of the Dukes of Lorraine. Theatre, concerts, numerous beautiful walks and excursions in the environs.

MEANS OF ACCESS. — Main line from Paris to Strasbourg. Three lines of tramway run from Nancy to Nancy-Thermal.

GENERAL INFORMATION. — For information regarding the thermal cures, apply to the Director of the Etablissement de Nancy-Thermal, Nancy (Meurthe-et-Moselle). For information regarding accommodation, etc., apply to the Syndicat d'Initiative de Nancy, rue Gambetta, 46.

Ruins of the Fleckenstein near Niederbronn.

NIEDERBRONN-LES-BAINS

FERRO-SALINE, CHLORO-BROMIDE BICARBONATED AND RADIO-ACTIVE WATERS CONTAINING LITHIA, ARSENIC, RARE GASES. — TEMPERATURE 64°4 F.

Season May to October.

SITUATION AND CLIMATE. — Between two high hills, on the eastern slope of the northern Vosges (Red sand stone) in the valley of the Falkenstein. 540 kilometres from Paris, 46 kilometres from Strasbourg. On the line Strasbourg-Vendenheim-Haguenau-Sarreguemines-Metz.

Through trains Strasbourg-Niederbronn in summer.

Services of auto-cars of the Route des Vosges: Strasbourg, Niederbronn, Etang de Hanau, Obersteinbach, Wörth.

PHYSIOLOGICAL ACTION OF THE WATERS. — Stimulating, aperient, discutient, dessicant and tonic properties.

THERAPEUTIC INDICATIONS. — Diseases of the digestive tract and its appendages; arthritis with obesity; lymphatism, scrofula, sterility, pelvic pain in women, also irregularities.

MEDICAL MEN. — Drs. Munsch, Strelen.

THERMAL BATHS. — The Romans erected a veritable thermal town around the springs. A new Thermal Establishment will be opened in 1924.

AMUSEMENTS. — Casino, cinema, Alsatian Fêtes, concerts, dancing, tennis, fishing.

Magnificent excursions in Alsace; forests, lakes, gallo-roman camp, ruins of fortified castles and churches of the middle ages, battlefields of Reichshoffen and Froschwiller (1870), centre for touring.

Prolonged season.

ACCOMMODATION — 4 second-class hotels, comfortable 130 bed-rooms
10 hotels of more modest order. 100 bed-rooms.
10 furnished houses, villas and apartments at all prices.

GENERAL INFORMATION. — Apply to the Syndicat d'Initiative de Tourisme, Niederbronn-les-Bains (Bas-Rhin).

The Park and the "Pavillon des Sources"

POUGUES-LES-EAUX

COLD WATERS CONTAINING VARIOUS BICARBONATES, IRON, MANGANESE AND LITHIUM

Season from 1st June to 30th September

SITUATION AND CLIMATE — On the borders of the Morvan, near the Loire at 240 kilometres from Paris. Climate of the plains tempered by the forests : sedative at the resort itself, more bracing on the neighbouring heights. Altitude : 975 ft.

CHEMICAL COMPOSITION OF THE WATERS. — Four springs in use, *Saint-Léger, Alice, Saint-Léon, Elisabeth,* differing by their content of lime, iron, soda. The Alice spring contains particularly calcium, the Saint-Léger spring mixed bicarbonates, small amount of iron, magnesium and lithium. It contains per litre : free carbonic acid (2 grm 117) ; bicarbonate of soda (1 grm 030) ; bicarbonates of lime (1 grm 893) ; bicarbonate of magnesium (0 grm 455) ; bicarbonate of iron (0 grm 060) ; chloride of lithium (0 grm 046) ; helium. Radio-activity : 0,10.

PHYSIOLOGICAL ACTION. — Stimulating action as well on the general nutrition as on the functions proper of the stomach, the liver, the intestine, the kidneys and the endocrine glands. Polyuria. Marked cholagogue action. Increase in appetite and weight of the patients.

PRINCIPAL THERAPEUTIC INDICATIONS — Digestive, nervous and glandular insufficiencies. All asthenic and atonic conditions. Gastric atony, *hyposthenic dyspepsia* hepatic atony, atony of the haematopoietic organs (anaemia and chlorosis, tropical anaemia). Biliary lithiasis in the early stages, hepatic disorders due to dyspepsia, insufficient elimination of urine. Accessorily, diabetes with asthenia or emanciation for cases unable to stand a debilitating alkaline cure.

Disorders of growth and pregrancy. Headache and insomnia of nervous or digestive origin.

THE BATHING ESTABLISHMENT. — Supplied with every modern apparatus for hydrotherapy. Laboratories for chemical and bacteriological examination.

The treatment is essentially that of ingestion. Baths, hip-baths, hot and cold douches. Cure by rest, suggestion and climate. Physical education and fencing teachers.

MEDICAL MEN. — Drs Hyvert, Lelu, Meslier, Renard.

AMUSEMENTS. — Several parks, casino, theatre, shooting, tennis, fencing school. Easy walks, the Loire, the Bertrange forest, the Morvan (with picturesque excursions of great historical interest), Nevers, Bourges, Premery, Fourchambault.

ACCOMMODATION. — 1 first-class hotel, hot and cold water ; electric light ; bath-rooms ; 110 bed-rooms, of which 10 have private bath-rooms attached.

4 second-class hotels, comfortable, with 230 bed-rooms.

3 third-class hotels, more modest, with 80 bed-rooms.

GENERAL INFORMATION. — Apply to the Directeur, Etablissement Hydrominéral, Pougues-les-Eaux (Nièvre), or to the Compagnie des Eaux Minérales de Pougues, 15, rue Auber, Paris.

The Church and the Mill.

LA ROCHE-POSAY

COLD WATERS CONTAINING CALCIUM BICARBONATES, SILICATES AND SILENIUM

Season 15th May to 15th October

SITUATION AND CLIMATE. — Charming little town on the banks of the Creuse, on the borders of Touraine and Poitou, 22 kilometres from Châtellerault, 1 400 inhabitants. Altitude : 244 ft. Sandy soil, dry, permeable, agreeable and temperate climate, extremely pure atmosphere. 6 hours from Paris.

CHEMICAL COMPOSITION OF THE WATERS. — Three cold springs (50° F.) : *Saint-Savin, Saint-Cyprien, Duguesclin*

Clear water, odourless, non-gaseous. Weak mineralisation (0 grm. 59 per litre). Essential elements : bicarbonate of lime, 0 grm. 45 ; silicum, 0 grm. 03 and *silenium*, a metalloid rare in mineral waters, discovered here by Professor Taboury. Radio-active waters.

PHYSIOLOGICAL ACTION. — 1. *Imbibition :* the water is pleasant to drink. The Saint-Cyprien spring is very diuretic : after 24 to 48 hours, it causes the expulsion in the urine of gravel, deposits and uric acid.

2. *Baths :* A fine whitish pellicle is deposited on the skin forming a very soothing dressing which allays irritation and promotes healing.

PRINCIPAL THERAPEUTIC INDICATIONS. — *Arthritism* in all its forms and especially the two following :

1. *Eczema,* that is to say *arthritism affecting the skin.* Its most varied and intractible forms, acute, chronic, pruriginous or irritable are quickly soothed and cured.

2. *Arthritism* affecting the joints, the *kidneys,* the *liver :* gout, gouty rheumatism ; renal lithiasis (nephritic colic, calculi) ; biliary lithiasis (hepatic colic) ; cholaemia, diabetes.

The waters of the Saint-Cyprien spring, wether taken on the spot or at home, are the type of antiarthritic waters.

The waters of the Saint-Savin Spring or " *Eau de Lucine* " have proved to be remarkably effectual in the treatment of *diabetes* and *vomiting in gravid women.*

CONTRA-INDICATIONS. — Cancer, advanced tuberculosis.

THE BATHING ESTABLISHMENT. — Modern and comfortable establishment. Complete service of hydrotherapy. The waters are employed for imbibition, baths, atomisation, douches. Air cure in an atmosphere which is fluid, luminous, very light.

MEDICAL MEN. — Drs. Bardet, Guyot, Testut.

AMUSEMENTS. — *Casino Municipal :* theatrical performances, dancing, cinema, gaming-rooms. Beautiful stretch of the Creuse river at its meeting with the Gartempe ; boating on 3 kilometres of calm water, shooting, fishing. The green hills of La Touraine, Berry and Poitou : Preuilly, Le Grand-Pressigny, La Haye-Descartes, Abbey of Fontgombault, ruins of Angles-sur-Anglin, etc.

ACCOMMODATION. — 3 first-class hotels, comfortable, 185 bed-rooms.

3 hotels of more modest order, 75 bed-rooms.

A few furnished villas.

GENERAL INFORMATION. — Apply to the Director, L'Etablissement Hydromineral, La Roche-Posay (Vienne).

General view.

SAINT-SAUVEUR

THERMAL WATERS CONTAINING SODIUM AND SULPHUR

Season 15th May to 15th October.

SITUATION AND CLIMATE. — Saint-Sauveur is situated in the Hautes-Pyrénées on the Gave de Pau between Lourdes and Gavarnie. The railway station is at Luz (1 km.). It is 878 kilometres from Paris. Altitude : 2.529 ft. Saint-Sauveur, advantageously placed upon the slope of the mountain facing the rising sun, has a climate singularly temperate, sedative and bracing.

CHEMICAL COMPOSITION OF THE WATERS. — Three springs, the *Source des Dames*, the *Source de la Houtalade* and the *Source Dufau*. The temperature of the waters varies from 66°2 to 94°28 F. They are strongly impregnated with sulphur. The contents are : sodium sulphide, 0 grm. 0218 ; sodium chloride, 0 grm. 0695 ; sodium sulphate, 0 grm. 0400 ; silicates of sodium, lime, magnesia, aluminium, potassium, traces of iodine. The waters are radio-active, and contain baregine and free nitrogenized gas.

PHYSIOLOGICAL ACTIVITY. — The waters have a tonic effect upon utero-pelvic organs which have become weakened or debilitated, while their action upon the general condition is sedative. They are diuretic and alterative.

PRINCIPAL INDICATIONS. — Saint-Sauveur is essentially a women's spa. The treatment is very specially indicated in metritis, salpingo-ovaritis, displacement, parametritis, sequelae of parturition, sterility, the menopause ; it is very beneficial in nervous and irritable conditions with gastric or urinary complications, and it is a valuable adjuvans in the management or tropical diarrhoea, diseases of the prostate and urinary lithiasis.

CONTRA-INDICATIONS. — Tuberculosis and cancer of every kind and degree.

BATHING ESTABLISHMENT. — The bathing establishment, an attractive building, is provided with twenty-two marble baths which are filled with water straight from the spring. The arrangements permit of vaginal douches being given during the bath. There are three rooms for douches and three for ascending douches.

These measures are reinforced by the waters given by the mouth.

MEDICAL MEN. — Drs. Macrez, Marcassus, Surle.

AMUSEMENTS. — There are tennis, a Casino, easy walks and various excursions. Of the latter the most interesting are : the Cirque de Gavarnie and de Troumouse, the Brèche de Roland, Gèdre, Héas, Pics de Bergous, Viscos, Pic du Midi, Mont Perdu, Pont Napoléon which crosses the Gave de Pau at a height of 213 ft.

ACCOMMODATION. — 3 second-class hotels, with 120 bed-rooms. — 20 furnished houses and villas.

GENERAL INFORMATION. — Inquiries should be addressed to Le Directeur de l'Etablissement Thermal, or to Le Syndicat d'Initiative, Luz-Saint-Sauveur (Hautes-Pyrénées).

General view.

SALINS-DU-JURA

WATERS CONTAINING SODIUM AND MAGNESIUM CHLORIDE, BROMIDE AND CALCIUM SULPHATE

Season from June to September.

SITUATION AND CLIMATE. — The altitude of Salins is 1.161 ft. It is situated in a charming valley surrounded by mountains and has a temperate mountain climate. It has a population of 5.000 inhabitants and is at 400 kilometres from Paris.

CHEMICAL COMPOSITION OF THE WATERS. — 1. *Analysis of spring water :* Sodium chloride, 23,75712 ; magnesium chloride, 0,25652 ; potassium bromide, 0,03065 ; sulphate of lime, 1,41667 ; traces of sodium iodide, carbonate of lime, magnesia.

2. *Analysis of the " Eaux-Mères " :* After extraction of the chloride of sodium, the spring water leaves an oily liquid, yellowish in colour and very highly mineralised. This is the *Eaux-Mères* ; it contains sodium chloride, 168,0400 ; magnesium chloride, 60,0084 ; potassium bromide, 2,8420 ; potassium sulphate, 65,5856 ; sodium sulphate, 22,06 ; traces of ferric oxyhydrate. Temperature : 53°6 F.

PHYSIOLOGICAL ACTIVITY. — The waters of Salins are alterative in character ; they are employed exclusively externally. They have an energetic stimulant effect upon the peripheral nervous system and indirectly upon the nutritional exchanges. They promote the circulation and by this means increase the appetite.

The treatment consists in baths of spring water, either simple or reinforced by addition of the " Eaux-Mères " and of douches, irrigations, resolvent " Eaux-Mères " compresses, etc.

PRINCIPAL INDICATIONS — *Medical :* Lymphatic conditions, scrofula, anemy, debility.
Surgical : Ganglionis, bones and articular scrofula.
Gynecological : Chronic metritis, congestion, uterine fibroma.

CONTRA-INDICATIONS — Febrile phthisis, acute conditions.

BATHING ESTABLISHMENT — The bathing establishment possesses 40 bath-rooms, 2 rooms for douches, a room for vaginal sprays and douches and a large swimming bath with hot mineral water (86 000 litres).

MEDICAL MEN. — Drs Baud, Bourny, Dejeux, Duboz, Ducruet, Neumand, Perret.

AMUSEMENTS — There are facilities for open-air treatment ; there are agreeable pine woods ; excursions are numerous and easy. There is a casino, theatre, park and public gardens. Old castles. Excursions center of the P.-L.-M. Motor-Service.

ACCOMMODATION. — There are 4 comfortable second-class hotels with 120 bed-rooms and 2 third-class hotels with 60 bed-rooms.
There are a few furnished houses, and villas and apartments to suit all tastes.

GENERAL INFORMATION — Inquiries should be addressed to La Société des Eaux Minérales or to Le Syndicat d'Initiative, Salins-du-Jura (Jura).

General view.

VIC-SUR-CÈRE

COLD CHALYBEATE SPRING CONTAINING MIXED CARBONATES

Season : 1st June to 1st October.

SITUATION AND CLIMATE. — Altitude : 2.194 ft. In the midst of a most picturesque valley, sheltered from the north. Over 2.000 persons take the waters every season.

CHEMICAL COMPOSITION OF THE WATERS. — Yield : 3.000 litres per diem. The mineralisation is as follows : carbonic acid from the bicarbonates (1 grm. 8542) ; free carbonic acid (1 grm. 0173) ; sodium carbonate (1 grm. 3001) ; magnesium carbonate (0 grm. 3007) ; calcium carbonate (0 grm. 5035) ; ferrous carbonate (0 grm. 1220) ; silicum (0 grm. 0542) ; sodium chloride (1 grm. 1408) ; sodium sulphate (0 grm 9334) ; potassium sulphate (0 grm. 0838) ; lithium, borates, arsenates : traces. Total mineralisation : 5 grm. 3755.

PHYSIOLOGICAL ACTION. — Clear, colourless liquid with an agreeable taste.

PRINCIPAL THERAPEUTIC INDICATIONS. — They facilitate metabolism. In large doses, they are laxative and diuretic.

Indicated in anaemia, chlorosis, gout, lithiasis, intestinal dyspepsia with constipation.

THE BATHING ESTABLISHMENT. — The bathing establishment, rebuilt in 1911, includes 18 bath-rooms and an apartment for douches.

The treatment is principally that of imbibition.

MEDICAL MEN. — Drs. Degoul, Tournier, Lambert.

AMUSEMENTS. — Admirable rest cure for the run down and nervous and for anaemia

Touring district. Mountainous country : Plomb de Cantal (5.965 ft.). Pics and Puys, easy and varied excursions, forests, waterfalls, grottoes, motor-coach service. (The hill station of Le Lioran (3.752 ft.) is only 17 kilometres distant.)

Casino, halls for plays, dancing, gaming, also tea rooms. Large park, tennis, carnivals, fairs, etc.

ACCOMMODATION. — 3 second-class hotels, comfortable. 155 bed-rooms.

2 third-class hotels, more modest. 25 bed-rooms.

A few furnished villas.

GENERAL INFORMATION. — Apply to the Syndicat d'Initiative de Vic-sur-Cère or to the Etablissement Thermal.

ALET (Aude)

WARM AND COLD WATERS CONTAINING CALCIUM BICARBONATE

30 kilometres from Carcassonne. Altitude : 650 feet. Climate mild and dry.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Temperature : 77° F. to 89°6 F. Weak mineralisation : carbonate of lime, carbonic acid, magnesium, iron, lithium, arsenic.

The treatment is primarily by imbibition supplemented by baths.

The waters are sedative, digestive and diuretic.

THERAPEUTIC INDICATIONS. — *Stomach :* gastralgia, hypersthenic dyspepsia, simple ulcers. *Intestine :* acute enteritis, colonial and mucomembranous enteritis, gastro-enteritis in children. *Liver :* congestion of the liver.

AULUS (Ariège)

COLD WATERS CONTAINING SODIUM SULPHATES

Situated at 31 kilometres from Saint-Girons.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — 5 springs. Yield : 800.000 litres per diem. Total mineralisation : 2 grm. 5. Lime and strontium, magnesium, sulphuric acid, sesquioxide of iron, arsenic.

Treatment by imbibition.

These waters are diuretic, purgative or laxative according to the dose.

THERAPEUTIC INDICATIONS. — *Arthritism :* gout, gravel, obesity, diabetes, rheumatism. *Gastro-intestinal tract :* atony, enteritis, constipation. *Lithiasis :* renal, hepatic, intestinal. *Special indications :* syphilis, dermatosis.

BAINS-LES-BAINS (Vosges)

VERY WARM WATERS CONTAINING ALKALINE SALTS, SULPHATES, SODIUM, SILICATES

In the Vosges, 28 kilometres from Epinal. Altitude : 1.300 feet. Valley running east and west, sunny. Climate dry, temperate, tonic.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Temperature : 93°2 F. to 123°8 F. Total mineralisation : 0 grm. 50 per litre, sulphate of soda, sodium chloride, carbonates of soda and of lime, silicon, oxide of iron, arsenic ; high radioactivity.

External treatment.

Sedation of painful phenomena, tonic and stimulating action on nutrition. Diuretic.

THERAPEUTIC INDICATIONS. — *Arthritism :* amelioration of painful manifestations rheumatism, gout (between attacks), sciatica. *Circulation and blood vessels :* Early stages of arteriosclerosis. *Affections of the nervous system.*

BALARUC-LES-BAINS (Hérault)

WARM WATERS CONTAINING SODIUM CHLORIDE, COPPER, MAGNESIUM

Balaruc is not far from Cette on the north east shore of the lake of Thau. Climate uniform and mild.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Sulphate of lime, sulphate of magnesium, chloride of magnesium, lithium, copper ; sulphates of calcium and potassium ; bicarbonates of calcium and magnesium. Temperature : 118° F. Total mineralisation : 10 grm. 26.

The water is used for imbibition, baths and douches, injections. Mud baths are an accessory treatment.

THERAPEUTIC INDICATIONS. — Recent or flaccid *paralysis*, tuberculosis of the bones, *rheumatism* and various forms of arthritis. *Uterine disorders.*

BARBAZAN (Haute-Garonne)

WATERS CONTAINING CALCIUM AND MAGNESIUM SULPHATES

On the Paris-Toulouse line, 13 1/2 hours from Paris. Altitude : 1.460 feet.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Sulphate of lime, sulphate of magnesium, carbonate of lime, carbonate of magnesium, oxide of iron. Total mineralisation : 3 grm. 459 per litre.

Employed for baths, douches, intestinal lavage and for imbibition.

THERAPEUTIC INDICATIONS. — *Malaria*, intermittent fever : *disorders of the liver.*

BARBOTAN-LES-THERMES (Gers)

WATERS CONTAINING SULPHUR, SODA AND IRON, VEGETO-MINERAL MUD

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS AND MUD. — Carbon-dioxide waters, 96°8 F., radio-active vegetable muds brought to the surface by the pressure of the warm water which washes them.

Treatment by baths and douches, auxiliary treatment by imbibition.

The external treatment promotes nutrition of the tissues ; the internal treatment acts on the digestive system and the kidneys

THERAPEUTIC INDICATIONS. — *Rheumatism*, chronic *arthritis*, neuralgia, *paralysis*, *phlebitis.*

LE BOULOU (Pyrénées-Orientales)

COLD GASEOUS WATERS CONTAINING BICARBONATES AND SODA

Situated in the midst of the woods dominating the valley of the Tech. Very mild climate. Seasonable throughout the year.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Bicarbonate of soda, alkaline bicarbonates and earth alkalines, sulphates, chlorides, arsenates, etc. Temperature : 60°8 F. to 66°2 F. Total mineralisation : 4 grm. 50 per litre.

Improvement of appetite, increase in diuresis, acceleration of the circulation.

THERAPEUTIC INDICATIONS. — *Stomach :* dyspepsia, gastritis, chronic and cachetic *malaria.* Congestion and engorgement of the *liver* ; chronic diarrhoea, especially tropical diarrhoea. *Kidney and bladder :* urinary lithiasis.

BUSSANG (Vosges)

WATERS CONTAINING ARSENIC, IRON, BICARBONATES, SODA AND CALCIUM

Mountainous country, altitude : 2.175 feet.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Free carbonic acid, calcium, magnesium and ferrous carbonates, manganese, arsenate of iron, silicon, aluminium, sodium, potassium and lithium carbonates, sulphate of sodium, chloride of sodium. Total mineralisation : 1 grm. 5474 per litre

The waters are restorative, digestive and diuretic.

THERAPEUTIC INDICATIONS. — Primary *anaemia*, anaemia following acute diseases, tropical anaemia. *Lymphatism*, chlorosis, scrofula, general debility.

CAMBO-LES-BAINS (Basses-Pyrénées)

WATERS CONTAINING SULPHUR, CALCIUM AND IRON

Resort for hydro and climato-therapy at an altitude of 230 feet. Mild and temperate climate. Near the sea (20 kilometres) and the mountains.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Calcium sulphide waters : 73° F. Mineralisation : 2 grm. 5 per litre. Sulphide of calcium, sulphate of calcium, free gases (sulphuretted hydrogen, nitrogen-carbonic acid).

Cold chalybeate waters : 60°8 F. Carbonate of iron and of manganese.

Administered by the mouth and as baths, douches, inhalations, atomisation.

THERAPEUTIC INDICATIONS. — *Disorders of the respiratory tract* in arthritism. *Dermatosis.* Chronic rheumatism. Climate suitable for tuberculosis in nervous subjects, either in the initial or acute stage (Sanatoria).

CHAUDESAIGUES (Cantal)

VERY WARM WATERS CONTAINING BICARBONATES AND SODIUM

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Temperature : 179°6 F. Weak mineralisation. Carbonate of soda and of lime ; sodium chloride. Total mineralisation : 0 grm. 811 per litre. Carbonic acid. *The warmest mineral water in France.*

Utilised for baths, douches and inhalation.

THERAPEUTIC INDICATIONS. — All forms of *rheumatism* ; ankylosis ; neurosis.

EAUX-CHAUDES (Basses-Pyrénées)

WARM SULPHUR WATERS CONTAINING SODIUM, CALCIUM, SILICATES

Situated in the valley of Ossau. Altitude : 2.194 feet. Tonic climate without sudden changes.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Temperature : 75°2 F. to 96°8 F. Seven springs, in use sodium sulphide, calcium salts, alkaline silicates.

External and internal treatment.

Sedative effects of great therapeutic value.

THERAPEUTIC INDICATIONS. — *Gynecological conditions :* metritis, troubles of the menopause, sterility. *Disorders of the respiratory system :* non-infective bronchial catarrh.

LES FUMADES (Gard)

COLD HYDROSULPHIDE WATERS CONTAINING SULPHATES, CALCIUM, BITUMEN

Resort sheltered by mountains ; no sharp atmospheric changes.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Eleven cold springs. The degree of sulphuration varies and together they present a graduated scale. Important proportion of sulphate of lime ; *mineral tar.*

THERAPEUTIC INDICATIONS. — *Disorders of the respiratory tract :* chronic coryza, laryngitis, after effects of pneumonia, and pleurisy. Chronic bronchitis (associated with lymphatism or arthritism).

GRÉOUX-LES-BAINS (Basses-Alpes)

WATERS CONTAINING CALCIUM SULPHIDE, CHLORIDE, AND IODIDE

Situated in the Digne district.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — One spring. Temperature : 96°8 F. Distinctly radio-active, containing a moderate amount of carbon dioxide and lithium, free sulphuretted hydrogen, calcium sulphide, bicarbonates of sodium and magnesium, silicon, chlorides of sodium and magnesium, potassium iodide.

Treatment by external application and internal administration.

Mildly stimulant, definitely sedative, diuretic and resolvent.

THERAPEUTIC INDICATIONS. — Chronic *rheumatism. Arthritism and its* manifestations ; *traumatic lesions* of the bones and joints. *Non-infective conditions of the throat and bronchi.*

HAMMAM MESKOUTINE (Algeria)

VERY WARM WATERS CONTAINING BICARBONATES, SULPHATES, AND SODIUM CHLORIDE

25 kilometres from Guelma in the province of Constantine.

Season : 15th December to 15th June.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Temperature : 105°8 F. to 204°8 F. ; great yield.

Containing bicarbonates, sodium sulphate and chloride with iron and arsenic.

External treatment : baths, douches.

These waters are sedative.

THERAPEUTIC INDICATIONS. — Gynecological conditions. Chronic rheumatism. Dermatosis. Sciatica. Paralysis. Malaria.

LONS-LE-SAUNIER (Jura)

COLD SODIUM CHLORIDE WATERS

Chief town of the department of Jura.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Cold sodium chloride waters. Mineralisation : 17 grm. 50 per litre. Sodium chloride : 10 grammes.

Mother waters, mineralisation : 313 grammes.

External use.

Restorative action.

THERAPEUTIC INDICATIONS. — Lymphatism. Tuberculosis of the bones. Gynecological conditions.

MIERS (Lot)

COLD WATERS CONTAINING SULPHATES AND SODIUM

Three kilometres from Alvignac. Altitude : 1.350 feet. Air pure and very dry. Temperate climate.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Bicarbonates of calcium and iron, silicate of magnesium, sulphate of sodium, of magnesium and of potassium, sodium chloride. Temperature : 59° F.

The water is diuretic, laxative or purgative according to the dose.

Treatment by imbibition.

THERAPEUTIC INDICATIONS. — *Intestine :* habitual constipation, chronic enteritis and appendicitis, haemorrhoids. Congestion of the *liver*, biliary lithiasis. *Renal gravel.*

MOLITG (Pyrénées-Orientales)

WATERS CONTAINING SULPHUR AND SODIUM

In the eastern Pyrenees. 7 kilometres from Prades.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Ten springs. Temperature : 68° F. to 100°4 F. Sodium sulphide, sodium carbonate, sodium chloride, soda, silicon, lime, magnesium, sulphate of lime.

Treatment by baths and douches and by imbibition.

Regulates the general circulation and the functions of the skin.

THERAPEUTIC INDICATIONS. — *Diseases of the skin :* eczema, impetigo, psoriasis, various forms of dermitis. Specific action on the mucosa.

LA MOTTE-LES-BAINS (Isère)

VERY WARM WATERS CONTAINING SODIUM CHLORIDE AND CALCIUM SULPHIDE

On the La Mure line. Altitude : 1.950 feet. Equable temperate climate ; dampness almost unknown ; very little wind.

CHEMICAL COMPOSITION OF THE WATERS. — Two springs. Yield : 400.000 litres per diem. Temperature : 141°8 F. at the spring. Total mineralisation : 5 grm. 60 per litre. (3 grm. 07 chloride of sodium, 0 grm. 16 chloride of magnesium, 1 grm. 67 sulphate of calcium).

External treatment.

Local action : alleviates congestion and favours resolution.

General action : sedative and tonic.

THERAPEUTIC INDICATIONS. — 1. Gynecological conditions, chronic metritis, uterine fibroma. — 2. Chronic arthropathy. — 3. Lymphatism, bony and articular tuberculosis of a scrofulous type.

OREZZA (Corse)

CHALYBEATE WATERS CONTAINING MAGNESIUM, ACIDULATED AND AERATED

Situated at the foot of Mont San-Pedrone, 50 kilometres from Bastia, at an altitude of 1.140 feet.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Free carbonic acid ; carbonates of protoxide of iron, of manganese, lime, lithium and magnesium ; sulphate of lime ; chloride of potassium and of sodium ; silicic acid. Temperature : 51°8 F. to 59° F. Slightly sour, piquant taste.

Treatment by imbibition.

THERAPEUTIC INDICATIONS. — *Chlorosis*, anaemia, *malaria.*

LA PRESTE (Pyrénées-Orientales)

WARM SODIUM SULPHIDE WATERS

Situated below Amélie-les-Bains in the valley of the Tech. Mediterranean climate, temperate and very uniform.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Temperature : 111°2 F. Three springs the total yield of which reaches 1.700.000 litres per diem.

Water rich in sulphur, slightly alkaline.

External treatment and internal administration.

Anti-toxic, diuretic and purifying.

THERAPEUTIC INDICATIONS. — *The urogenital organs.* Uric diathesis, gravel, nephritic colic, pyelo-nephritis, bacteriuria, cystitis, prostatitis, urethritis, urinary neurosis, vaginitis, metritis, salpingitis.

SAIL-LES-BAINS (Loire)

WATERS CONTAINING SILICATES, ALKALINE SALTS, IODIDE, LITHIUM, IMPREGNATED WITH NITROGEN, VERY STRONGLY RADIO-ACTIVE

40 kilometres from Vichy, on the Saint-Germain-des-Fossés-Lyons line.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Temperature : 34° F. Treatment by baths or prolonged local douches.

The waters, owing to the alkaline silicates which they contain, are anti-septic, anti-fermentescible, anti-parasitical.

Soothing, cicatrizing and desintoxicating action.

THERAPEUTIC INDICATIONS. — Used in the cases of dermatosis, eczema, arthritism and diseases due to reduced nutrition.

SAINT-AMAND (Nord)

SULPHUROUS MINERAL MUD, OLIGOMETALLIC WATERS CONTAINING MIXED SULPHATES AND BICARBONATES

240 kilometres from Paris, the temperate and sedative climate of wide plains, rendered tonic by near lying forests.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Weak mineralisation, high radio-activity. Sulphates of lime and of magnesium, bicarbonates. Cold and tepid waters (78°8 F.).

The vegeto-mineral mud of Saint-Amand contains sulphur, iron, calcium sulphate and magnesium.

They have a general action on the respiration, the circulation, the nervous system, muscles and bones and a local emollient, tonic, soothing and carminative action.

THERAPEUTIC INDICATIONS — For the *waters :* gravel and gastropathy, hypersthenia.

For the *mud :* atonic gout, chronic *rheumatism,* various forms of arthritis, arthritis deformans ; perimetritis and chronic *metritis* ; sciatic *neuritis and neuralgia,* palsy ; certain diseases of the skin ; eczema.

THE BATHING ESTABLISHMENT. — The bathing establishment, entirely destroyed by the German Army, has been completely rebuilt : it comprises several apartments for mud baths, baths and douches, douche-massage, complete installation of cold hydrotherapy.

SAINT-CHRISTAU (Basses-Pyrénées)

WATERS CONTAINING IRON AND COPPER

Saint-Christau is situated at the entrance of the Aspe valley at the foot of Mount Binet. Altitude : 1.040 feet. 40 kilometres from Pau. Very temperate climate.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — 5 springs. Temperature : 57°2 F. to 78°8 F. Sulphate of copper and colloidal copper.

External treatment and internal administration.

The waters have a stimulating action on the urinary tract. Their general action is stimulating, resolvent and healing.

Diseases of the skin and the mucous membrane : Tongue and buccal mucosa ; nose and throat ; skin, eyes, matrix.

SALIES-DU-SALAT (Haute-Garonne)

WATERS CONTAINING A HIGH PERCENTAGE OF SODIUM CHLORIDE ALSO BROMIDE AND IODIDE

Spa situated at an altitude of 975 feet, a few kilometres from the Pyrenees.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Cold clear waters, rich in sodium chloride.

Treatment principally external.

THERAPEUTIC INDICATIONS. — Torpid *gynecological conditions* ; *local articular tuberculosis* ; lymphatism, rickets, anaemia.

SAN-SALVADOUR (Var)

WATERS CONTAINING LITHIUM, BICARBONATES, SODA AND CALCIUM

Situated close of the Gulf of Giens, a few kilometres from Hyères. Average winter temperature : about 59° F.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — The San-Salvadour spring contains 0 grm. 065 of lithium per litre. Constant temperature · 62°6 F. It contains also sulphate of lime, bicarbonate of lime, sodium and potassium. Total mineralisation : 1 grm. 035 per litre.

THERAPEUTIC INDICATIONS — 1. *As a winter resort it is especially suitable for convalescents and the run-down.* — 2. As a spa, it is indicated in *gout, rheumatism,* and *arterio-sclerosis.*

SERMAIZE-LES-BAINS (Marne)

MIXED ALKALINE WATERS, CONTAINING CALCIUM BICARBONATE, MAGNESIUM SULPHIDE AND IRON

On the Paris-Strasbourg line between Vitry-le-François and Bar-le-Duc ; 3 1/2 hours from Paris (230 kilomètres).

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Temperature 53° F. agreeable taste, although impregnated with iron. Total mineralisation : 1 grm. 70 : bicarbonates of calcium and magnesium ; sulphates of magnesium, sodium and calcium ; magnesium and calcium chlorides ; potassium salts.

Utilised as baths, douches and by imbibition, they are toni-digestive, diuretic and laxative.

THERAPEUTIC INDICATIONS. — *Liver :* lithiasis, sequelae of hepatic colic. *The stomach :* Heavy or nervous dyspepsias. *Intestinal disorders :* Constipation and entero-colitis. *Kidneys* and *Bladder* ; all manifestations of arthritism, diabetes, gout, obesity, skin affections, etc. *Malaria.*

SOULTZMATT (Haut-Rhin)

COLD SODIUM BICARBONATE WATERS

22 kilometres from Colmar. Altitude : 884 feet.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Total mineralisation : 4 grm. 04. Sodium bicarbonate waters evolving gas : 11 grm. 94 of carbonic acid.

THERAPEUTIC INDICATIONS. — *Stomach :* dyspepsia, gastralgia.

THONON (Haute-Savoie)

COLD OLIGOMETALLIC WATERS CONTAINING CALCIUM BICARBONATE AND BENZOIN

Situated on the French side of the lake of Geneva at an altitude of 1.400 feet. Mild climate. Temperature uniform and moderate.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Weak mineralisation : 0 grm. 292 per litre. Balsamic resin, calcium, sodium, silicon, iron, aluminium, phosphates, potassium and magnesium.

The water is colourless and odourless, soapy to the touch.

THERAPEUTIC INDICATIONS. — General internal lavage. Local action on the kidneys and the *urinary tract.* Local action on the digestive system.

THUÈS-OLETTE (Pyrénées-Orientales)

SULPHUR WATERS, WEAKLY ALKALINE WATERS AND SULPHUR SILICATE WATERS

13 kilometres from Villefranche and 19 kilometres from Prades. Altitude : 2.440 feet.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Very plentiful waters. Temperature : 64°4 F. to 176° F. Three groups : 1. *Sulphur waters* with varying sulphuration, very warm ; 2. *Slightly alkaline or sulphur degenerated waters*, temperate or cold ; 3. *Sulphur silicate waters*.

Sedative action ; stimulating tonic and restorative action ; decongestive and resolvent.

THERAPEUTIC INDICATIONS. — *Gout* and its manifestations. Chronic *articular rheumatism*.

USSAT (Ariège)

WATERS CONTAINING CALCIUM SULPHATE AND BICARBONATE MAGNESIUM

Small village situated in charming hill country.

CHEMICAL COMPOSITION AND PHYSIOLOGICAL ACTION OF THE WATERS. — Total yield : 1.400 cubic metres daily. Simple warm alkaline waters with weak mineralisation but with a high radio-activity. Temperature : 95°5 F. to 108° F.

Remarkably soothing to the nervous system.

THERAPEUTIC INDICATIONS. — Nervous diseases, chorea, exophtalmic goitre, hysteria, neurasthenia, neuralgia, tachycardia, painful gynecological conditions.

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